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A Quantitative and Qualitative Investigation of Content-Area Literacy Instruction Integrated into Social Studies Content for Kindergarten - 4th Grade Students

Jennifer E. Lee
Cedarville University

A Quantitative and Qualitative Investigation of Content-Area Literacy Instruction Integrated into Social Studies Content for Kindergarten - 4th Grade Students

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JENNIFER E. LEE

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Abstract

The objective of this study was to research the impact of short term intensive instruction of content-area literacy strategies on students' academic success, students' reading attitudes, and teachers' perceptions of literacy integration into content-area learning of social studies with Kindergarten through 4th grade students at a private, Christian school. The experimental group of students did not show any statistically significant improvement over the control group of students. However, there was a trend in the experimental Kindergarten and 1st grade groups in which their content-area knowledge post-test scores slightly increased (5% and 10% increase in post-test scores, respectively) with additional literacy instruction, when compared to the control groups. Also, the experimental group (K-4th grade, n=16) showed an increase in words used correctly to describe three short-answer questions on content-area knowledge compared to the control group (n=16) (307 and 263 words used, respectively). Lastly, there was a trend of increasing post-test content-area knowledge proportionally being associated with increasing reading attitude perceptions. Although the results failed to show a statistical improvement of experimental groups with the use of additional literacy instruction, there are trends to suggest the value of incorporating literacy strategies into the social studies content-area knowledge instruction.

Introduction

The integration of literacy into content-area instruction has become a growing topic of interest and debate within educational circles. It was once a topic of discussion only among middle school (Hill, 2014; Townsend, 2009) and high school educators (Fisher, Frey, & Williams, 2002), due to its potential impact for influencing literacy skills across content-areas. Additionally, there is worldwide investigation on whether literacy should become a daily part of classrooms to improve individual socioeconomic transformation (Education for All, 2005). Educators and administrators alike have investigated different teaching methods, instructional strategies, and school wide advocacy programs to help develop students' literacy skills and content knowledge (Wilson, 2011). There are several reasons why content-area literacy has become a common topic of discussion across all grades, such as the implementation of standards-based education, standardized-testing, and the increasing use of technology.

A major reason for this growing interest in content-area literacy instruction is the controlling influence of standards-based education over content being taught in the classroom, with the added pressure of standardized-test performance (Hall, Burns, & Edwards, 2011). Based on the legislation of *No Child Left Behind* (2001), each state must now assess students' understanding of texts associated with content-area knowledge, and most of which are classified as informational text (NCLB Executive Summary, 2004). Thus, this academic race to fit both content-area knowledge and literacy instruction into the timeframe before standardized testing occurs in the classroom has placed more emphasis on the need for integrated instructional strategies. Another reason for the use of content-area literacy instruction is the rapid development of technology used in society. The technologically savvy generations of today are becoming the next consumers and producers of digital information, and technology is currently being integrated into classrooms as learning tools and primary sources of information (Hill,

2014). These types of Internet texts are predominately expository, and they are created so that readers can consume and digest large amounts of information in a shorter amount of time (Education for All, 2005). Again, this emphasizes the need for students to become more knowledgeable in literacy skills while cultivating content-area information and understanding.

There is also an ongoing discussion on which strategies are the best to use in the classroom. Teachers are continuously searching for ways to engage students in building upon foundational literacy skills by having meaningful experiences with text through reading and sharing literature (Flood & Lapp, 1994). One literacy strategy is to incorporate content-area literacy into all content-related areas of instruction throughout the school day (Wilson, 2011; Connor et al., 2012). There is a host of content-related texts and literature that are used for each of the subject areas, which give students the opportunity to interact with texts that provide information on a certain classroom topic, as well as, allowing students to practice and develop their literacy skills and abilities. The designated classroom periods set aside specifically for language arts and reading are not the only times when students are required to meaningfully engage with texts; therefore, the implementation of content-area literacy instruction is suggested to be a continuous practice in the classroom. Integrating content-area literacy instruction can pose as a challenge because it requires educators to first reflect on the most effective teaching strategies (Fang, Sun, Chiu, & Trutschel, 2014). Teachers then need to be empowered to employ these techniques while also helping students construct a mental framework on how texts can be used across academic disciplines (Sewell, 2013). Fortunately, implementation of content-area literacy has become a popular topic of investigation at the elementary grade level due to the unique opportunity in a student's educational life because of the continual emphasis of developing students' literacy skills and reading abilities (Connor et al., 2009).

From an early age, children develop a curiosity about printed text and creating their own text through writing (Rosko, Christie, & Richgels 2003). Even before children enter into the classroom, they are surrounded and exposed to literacy concepts on a regular basis at home, in the media, and in the public arena. By helping them construct meaning and understanding via connections between printed words, speech, and real experience, children will come to school with foundational literacy tools that will continue to help them grow into good readers (Roskos, Christie, & Richgels, 2003). This desire to know and learn more about text, speech, and writing develops as they are presented with new literature and opportunities within the classroom. Teachers provide students with resources and experiences in the classroom, while also instructing them in different ways to employ literacy in a more meaningful way. By building students' literacy skills repertoire, they will become more competent in interacting with different types of text across a wide range of content (Connor et al., 2010, 2012; Fang, Sun, Chui, & Trutschel, 2014; Jewett, 2013; Ming, 2012; Wilson, 2011).

These skills will continue to serve them well as they move into middle school, high school, and beyond. Students' reading levels are not the only factor that determines their overall reading skills or competence; in fact, students' academic success in content-area classes revolves around their knowledge and understanding of content-heavy exposition, non-fiction materials, and various texts (King-Sears & Bowman-Kruhm, 2010). Therefore, the need for decoding complex vocabulary and comprehension instruction are still necessary for many students participating in secondary content-courses (King-Sears & Bowman-Kruhm, 2010; Townsend, 2009). Educators and administrators recognize the lack of literacy competency in students across the content-areas (Connor et al., 2010). This problem is the topic on many educators' minds and how to effectively integrate content-area literacy instruction within all classrooms, including elementary classrooms. These guiding thoughts are the focus of this research project and are

consider the current discussion surrounding content-area literacy of elementary students within grades K – 4th.

Definition of Terms

Academic language. "Academic language can be defined as the language needed to be successful within a school context" (Grigorenko, 2013). It can also be referred to as "the oral, written, auditory, and visual language proficiency required to learn effectively in schools and academic programs—i.e., it's the language used in classroom lessons, books, tests, and assignments, and it's the language that students are expected to learn and achieve fluency in" (Academic Language, 2013). It may also be used interchangeably with *academic literacy*.

Comprehension. "Making meaning from text by using prior knowledge, understanding vocabulary and concepts, making inferences, and forming connections between critical ideas. Some examples of comprehension activities include "predicting, summarizing, identifying main ideas and details, visualizing, and understanding an author's purpose and perspective" (Key Terms, 2016).

Content-area. "A now-preferred synonym for subject or subject area among educators, content-area refers to a defined domain of knowledge and skill in an academic program. The most common content-areas in public schools are English (or English language arts), mathematics, science, and social studies (or history and civics)" (Content Area, 2013).

Content-area literacy. Literacy that is used in specific content-areas, such as language arts, mathematics, science, social studies, and history.

Developing reader. The term developing reader is used to describe a student who is constantly growing and positively changing his or her reading skills, which is a result of the variation of skills, strategies, and knowledge used when approaching and interacting with texts (Hall, Burns, & Edwards, 2011).

Early literacy. It is part of the dynamic process in which the earliest phases of literacy development help children to form reading and writing concepts and skills (Roskos, Christie, & Richgels, 2003). It can be described as "the knowledge, skills, and dispositions that precede learning to read and write in the primary grades (K-3rd)" (Roskos et al., 2003).

Early emergent reader. A student who is entering into the first stage of literacy development. This student will begin cultivating behaviors that lead up to conventional reading, in which he or she will "learn to handle books, learn that one reads print and not pictures, and that one reads from left to right and from top to bottom"(Gunning, 2000). However, at this time the student is most likely obtaining the most meaning from pictures in a text.

Expository text. Texts that are read for information and are "most commonly associated with textbooks, primary and secondary sources, newspaper and magazine articles, essays and speeches. Informational text is "organized by topic and supporting details. It may have boldface headings, graphics, illustrations and captions that signal importance in the text" (Expository Text Structure, 2009). The most common expository text structures include sequential, compare/contrast, concept/definition, cause/effect, and problem/solution (Expository Text Structure, 2009). It may also be used interchangeably with *informational text*.

Fluency. "Reading text at an appropriate pace and with accuracy and expression" (Key Terms, 2016).

Formative assessment. "[It] refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning needs, and academic progress during a lesson, unit, or course" (Formative assessment, 2014).

Literacy. The definition of literacy pertaining to academia is constantly changing; however, for this study it will be defined as "the ability to read and write knowledge that relates

to a specific subject" (Literacy, 2015), and being "versed in literature or creative writing; having knowledge or competence" in a certain content-area (Scherba de Valenzuela, 2002).

Literacy skills. They are the skills "that lay the foundation for reading and writing, such as understanding basic concepts about books or other printed materials, the alphabet, and letter-sound relationships" (Literacy Knowledge & Skills, 2015).

Multiliteracies. They are defined as "how teachers can create learning opportunities using multiple modes of meaning making to guide students toward the design of social futures with a diverse globalized society" (Grigorenko, n.d.).

Non-target question. Question used on an assessment that does not correlate with the content-area knowledge being tested.

Phonics. "[It] is a teaching and learning process based on applying knowledge of letter-sound correspondence and spelling patterns to learn to read written text" (Key Terms, 2016).

Phonological awareness. "[It] is the ability to identify, produce, and manipulate individual sounds in words. From birth, children begin to recognize the sounds of spoken language and develop an understanding of how sounds can be blended together, segmented, and manipulated" (Key Terms, 2016).

Print awareness. "Print awareness is a child's understanding that print has a function. When developing print awareness children learn that print carries meaning, is organized in a specific way, and that there [are] rules for how you read and write" (Key Terms, 2016).

Summative assessment. "[It is] used to evaluate student learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period—typically at the end of a project, unit, course, semester, program, or school year" (Summative assessment, 2013).

Target question. A question used on an assessment that directly correlated with the content-area knowledge being tested.

Visual literacy. It is "the ability to recognize and understand ideas conveyed through visible actions or images (as pictures)" (Visual literacy, 2015). In other words, students will view the pictures in a text and use them to formulate a meaning about the text.

Vocabulary. "Oral vocabulary includes words and concepts understood through listening and speaking. Reading and writing vocabulary includes understanding and using words and concepts when reading and writing text" (Key Terms, 2016).

Writing. "[It] includes a variety of skills along a continuum, from drawing, letter formation, and words and sentences to more sophisticated forms of writing that communicate ideas and convey information" (Key Terms, 2016).

Statement of the Problem

The debate over the implementation of content-area literacy instruction has become a growing area of concern for educators. Some educators believe that it is not necessary to implement content-area literacy instruction because students are already receiving literacy instruction during reading and writing subject classes, such as language arts or English (Moss, 2005; Wilson, 2011). Especially within the elementary grades, reading and writing are important goals in which state and national educational standards emphasize the need for students to learn various skills, concepts, and strategies to ensure their literacy development (Roskos, Christie, & Richgels, 2003; Sewell, 2013). Therefore, many educators have considered that the time being spent during content-areas should solely be spent on covering content-area instruction, without the added instruction on reading and writing concepts or strategies. By the time students reach middle school, teachers place a greater expectation on students, in which they are viewed as competent readers and writers (Hall, 2012). Teachers assume that the students who enter into their classrooms have portrayed the appropriate academic skill sets in order to move forward in their educational career. However, this is not always the case due to the individuality of each

student. Every student has his or her own individual characteristics and interests, which may not revolve around academics. Furthermore, each student has his or her own developmental timelines; some students develop certain academic skills, such as reading or mathematics, later than expected (Senn, 2012).

The other side of this debate emphasizes the importance of integrating literacy into all areas of content learning. Literacy and literacy techniques are vastly growing topics among educators. The reasons for this growth stem mainly from research conducted on the academic improvements made by middle school and high school students over the last twenty years. Several studies have been conducted and journal articles written (Fang, Sun, Chiu, & Trutschel, 2014; Fisher, Frey, & Williams, 2002; Hall, 2012; Hill, 2014; Mitton-Kukner & Orr, 2014; Wilson, 2011) showing literacy strategies that have benefited middle school and high school students academically and individually as they pursue further education. In shifting focus to the elementary classroom where students are still in the early stages of developing their academic skill sets, there can be additional benefit from early implementations of literacy skills and strategies (Roskos, Christie, & Richgels, 2003). These younger students can be exposed to content-area literacy, so that they will be able to carry these literacy practices over many years and into middle school and high school, thereby, enhancing their future academics. The use of literacy in any type of context is a life skill all students could be exposed to at an early age (Roskos et al., 2003).

Despite the focus on 6th – 12th grade literacy, there is a lack of research being conducted on content-area literacy pertaining to early childhood education in the elementary grades (Moss, 2005). With the integration of state and national education standards, teachers are required to teach more content-based knowledge, which consequently has pushed content-area literacy implementation to the side (Wilson, 2011). The integration of literacy into content-area learning

will continue to be discussed and debated among educators, administrators, and policy makers as the role of education, as well as, what techniques and topics should be included in education continue to expand and develop each year. For this study, I will be asking the following research question: "Will the integration of informational text reading instruction and literacy strategies during social studies content-area learning improve students' content-area knowledge (through the use of the same pre- and post-tests) and will their reading attitude change?"

Scope of the Study and Delimitations

A discussion of implementation of literacy skills into content-area knowledge for adult education is not a part of this study. The current study is investigating literacy skills in students in the educational setting. Likewise, a detailed plan of how to integrate literacy skills into content-area knowledge across a wide range of subjects school wide (K – 12th grade) is beyond the scope of this research. The current study focuses on early and emergent readers and their literacy skills. These topics would be interesting areas of investigation for future research.

The current research study focuses on integrating literacy skills into content area of social studies grades Kindergarten to 4th grade. Research conducted over the last 10 years will be used primarily as a reference to compare the outcomes of integration of literacy skills into content-area education for this study. The area of literacy instruction is emerging into a highly specialized area of education with a vast array of skills and techniques pertaining to multiliteracies. I will focus on primarily the areas of print awareness, phonological awareness, phonics, fluency, vocabulary, comprehension, and writing. The majority of the resources will be paper-based. Although the literature supports many literacy techniques, the current study will be primarily concerned with the literacy skills and strategies delineated in the list above.

Significance of the Study

The skills used to read, write, and understand literatures develop within each individual at a young age, and they are used on a daily basis across a vast array of situations. Literacy impacts every aspect of education, and as a result, it has become a major topic of discussion so that the best strategies can be researched, defined, and implemented in the classroom to improve students' education and literacy skills. However, there are educators who feel unqualified to teach and integrate such literacy strategies, especially within the content-areas, due to a lack of knowledge and education surrounding this topic. All educators are encouraged to stay abreast of current information and teaching strategies in order to implement best practices. Educators understand that elementary students come to school with some background knowledge of print awareness and phonological awareness; but, these literacy skills can be developed and enhanced throughout all content-areas. This can allow students to cultivate universal literacy skills and strategies that can be beneficial to live their daily lives, especially within a contemporary culture that is rapidly consuming information. The question of literacy integration into content-area instruction must be researched fully in order to gain a better understanding of best practices to improve student education.

The current study seeks to identify the impact of content-area literacy instruction, while also addressing the reading attitudes and perceptions among students, teachers, and teacher aides at the elementary level (K – 4th grade). The question presented in this study is as follows: "Will the integration of informational text reading instruction during social studies content-area learning improve students' content-area knowledge and will their reading attitude change?" I hypothesizes that the integration of content-area literacy as a part of social studies instruction will increase students' content-area knowledge, and it will also positively influence their reading attitudes. Also, it is hypothesized that the teachers and teacher aides will develop a positive

perception of content-area literacy instruction being used in the classroom, and acknowledge the benefits of incorporating literacy into content-area instruction. It is hoped that all student participants and educators involved in the study will develop a positive perception of content-area literacy due to the beneficial impact it can have on students' content-area knowledge and their developing literacy skills.

A Biblical Worldview

After reviewing various sources on the issue of content-area literacy, including the effects of NCLB and literacy programs, and a full research review of literacy strategies, a person is able to analyze the data and opinions from a biblical perspective. A Christian worldview is that in which the Christian observes and identifies how biblical principles are implemented into the educational system, using a person's belief of what the world is and what the world should be like based on these principles. As a Christian, a person's worldview allows him or her to use a biblical framework to understand the meaning of life and how an individual should live. A believer recognizes how sin has tainted the world God created and it is man's sinful nature that has corrupted his or her relationship with God. This worldview informs a believer of how the world should be, therefore, a Christian must understand his or her responsibility to influence the culture by representing Christ and the values He has taught believers. Once a Christian understands the foundation of his or her biblical worldview, a Christian worldview then influences how research is approached and interpreted.

A person must also recognize the strengths and weaknesses within the educational system. There are various connections between student achievement, literacy, and integration of literacy skills; however, a person must also keep in mind the importance of how a biblical perspective can provide him or her with a different view on how it may benefit or hinder students mentally, emotionally, academically, and spiritually. The current research focuses on the implementation of literacy skills into content-area learning in order to benefit students by helping them achieve higher academic levels. Being willing and able to help others is based on the biblical principle of stewardship in which people are given the task of helping others and improving upon what they already know. From the beginning of creation, humans were given the mandate to cultivate and subdue creation; however, this also means that humans can use their

creative skills, talents, and gifts to improve upon creation. God has provided people with unique abilities so that no two people are alike. This empowers humanity to fulfill the goal of creating and helping others develop their creative skills in order to improve lives for the glory of God. This biblical perspective enables one to see how the education system was founded on good intentions and has been providing students with literacy skills to positively impact their economic livelihood in the future, and also to ultimately grow into their full potentials as human beings. In the Old Testament, God called the Israelites to help the poor, widowed, and orphaned (Psalm 82:3, ESV; Exodus 22:22-23, ESV), and in the New Testament, Christ commands believers to love one another (John 15:12, ESV; 1 John 3:17, ESV). This can be accomplished via helping others meet their needs through the example God has given (Job 29:12, ESV; Psalm10:17-18, ESV; Psalm 68:5, ESV; Hebrews 13:16, ESV; Philippians 2:4, ESV; James 2:14-17, ESV; Acts 20:35, ESV). Christians have been called by God to help those who are in need, and schools are an avenue to try and meet these needs.

Continuing research on teaching methods allow educators to identify and work toward finding a solution for certain educational problems or barriers. Based on prior research and discussion, the American education system is part of the social system in which society passes down its attitudes, values, and ideals to the school. The students are then taught these concepts to transfer them to future generations. Teachers are given the ability to practice various teaching methods to facilitate learning, and as a result, students engage in practices that will help them to become productive members of the society (Sylvester, Kragler, & Liontas, 2014). Through various testing and evaluation processes, the schools and teachers are judged regarding how well they prepare their students for their role as contributors to society (Sylvester et al., 2014). Within each society there are many groups of people who have a vested interest in the education of students who are they are, in fact, the future workers and leaders of the nation. Therefore, the

nation has paramount concern for the educational system and the resultant preparation of students for their roles in society.

Americans value education in which students are taught information, concepts, ideas, and skills they need to prepare them for their future as citizens of society. In the classrooms, they are taught core subjects and a variety of other skills that will enable them to become productive members of society. Subjects such as math and reading are essential for students to know and understand, and if they lack competence in these subject areas it is a major deficiency. The American educational system develops ways to better students by helping them gain more from their academic experiences and improving upon their achievement levels. Through the implementation of NCLB and the content-area literacy initiatives, students have improved access to programs that will help them achieve those goals. Consequently, all students, despite their race, class, or gender, have the potential to increase their achievements academically, which gives them a greater chance at achieving their life goals. Therefore, literacy skills are a conduit for students to develop and to improve learning subjects to an advanced level. While students sometimes lack motivation that will hinder their education, the more students are able to learn about the world around them, the better prepared they are to care for and cultivate it. Achieving educational goals will also allow them to be good stewards of everything else within creation that God has given them.

An additional biblical principle that comes to play in academia is that all people are created in the image of God. This concept of being made in God's image holds true in different ways. For example, since God is the Creator and has made the Earth and all that is in it, humans also have the ability to create due to their inherent skills. God has given people certain talents and gifts in order for Him to be honored and glorified through people with their abilities. The education system is a way for students to learn and cultivate their abilities and talents in order to

fulfill the other principles of stewardship and reconciliation. Improving literacy skills is a way for students to become more knowledgeable as they are given more opportunities to develop their gifts. If students are not able to achieve an educational goal, such as meeting a reading requirement, then it hinders them from accomplishing successive goals. Therefore, emphasizing literacy skills and strategies will help students to overcome this hindrance as they succeed to achieve more academically. By giving students the tools and knowledge needed for them to accomplish their God-given goals, it will fulfill the mandate of stewardship and reconciliation. Using their skill sets will allow students to find the communicable attributes described in Galatians 5:22-23 and be a concrete representation of Christ to the world and proclaim that it is sin that tarnishes or dehumanizes the image of God in people.

Overall, biblical principles can be integrated into various educational issues that a person may find within the school setting. The concepts of stewardship, reconciliation, and the image of God all connect with how students are given and use educational opportunities. As a result, it allows them to exercise their ability to be stewards of what they know and are learning. It also allows them to experience more of what they are capable of learning and creating as image bearers of God. Today, there is such a wide range and variety of teaching methods available to educators. The value that education has within the world at large should encourage educators to research and practice different instructional strategies and methods in order to diversity their instruction and include more learning opportunities. With further research and implementation, effective teaching methods can allow students to reach their full potential while also addressing their individual learning needs.

Literature Review

Introduction to Content-Area Literature Review. A full literature review of content-area literacy in regards to education has been examined with emphasis on early childhood education. I have searched for available research literature from online databases, such as Academic Search Complete, Ebsco, OhioLink, Educational Full Text and Education Research Complete, JSTOR, ERIC, The National Association for the Education of Young Children, and Google Scholar. I have consulted books on content-area literacy, especially within the area of early childhood education, as well as, textual resources on student and teacher perceptions pertaining to literacy integration into content-area learning. After consulting the research, the literature has been analyzed in order to identify key aspects and philosophies on content-area literacy. I have identified the purpose and definition of content-area literacy and how it can be beneficial to integrate into all content-areas of learning, especially within the earlier years of students' academic careers. Content-area literacy has been evaluated and analyzed as a method used by teachers to engage student learning. Most of the literature related to this research study has been evaluated from resources within the last ten years in order to reflect and examine the most current and relevant findings on content-area literacy.

There are educators who have researched and discussed various literacy instructional strategies that can be integrated into content-areas. The article "Secondary Reading: Not Just for Reading Teachers Anymore" by Dieker and Little (2005) contains some literacy strategies that may prove useful to primary and secondary classrooms. The authors mention how the development of reading skills is a continuous process; reading can become difficult for students at the secondary level because teachers begin to expect students to perform at a certain literacy level they may not have reached. The elementary classroom is where students are taught various literacy skills, and once they enter into middle school and high school, the students are expected

to employ these literacy skills in order to learn. If these skills cannot be used appropriately, then students will not experience academic success. Classroom teachers can implement high-quality, research-based instructional methods coupled with effective literacy strategies in order to provide students with skills they can use in a variety of content-areas. The literacy strategies provided to students, such as literature circles, DISSECT decoding strategy, RAP paraphrasing strategy, and assistive technology, will increase their access to content-area knowledge and understanding. It can be overwhelming and frustrating to both students and teachers when students are ill equipped with the appropriate learning tools and literacy strategies necessary to fully master the content they are learning. Educators could implement practices, such as co-teaching or coaching, in order to diversity the types of content-area literacy strategies being taught to improve students' knowledge and understanding. Teachers can work together with administrators and other educational professionals to discuss, create, and practice instructional implementations regarding literacy strategies within content-areas.

Foundational Philosophy and Theoretical Framework. From an early age, students are exposed to literacy and language in a variety of ways, yet, they are still developing their literacy and language skills. As they advance through schooling, teachers have the ability to take the time to re-expose students to literacy skills and content instruction. The students will then begin to sharpen and build upon their skills. The students also have the opportunity to use their prior knowledge of literacy skills that they have already been exposed to throughout their development. In the article, "The Essentials of Early Literacy Instruction," the authors discuss the importance of developing children's literacy and language skills by exposing them to various types of language being used in textual form and being used orally (Roskos, Christie, & Richgels, 2003). This article discusses a few important emergent literacy teaching strategies for teachers to implement in the classroom to encourage pre-readers to become more aware of

language and literacy around them. The authors of this article also mention how these strategies can become a part of the curriculum and daily instruction in the classroom in order to build upon students' literacy skills. There is a high value placed on the development of printed text literacy skills in which students must be able to understand the basic conventions of book handling and book orientation. These basic skills are the building blocks for future literacy skills while minimizing any printed text confusion. They describe multiple teaching strategies that could be included in the classroom as a way to develop these early literacy skills, such as the following: rich teacher talk; storybook reading; phonological awareness activities; alphabet activities; support for emergent reading; support for emergent writing; shared book experience; and integrated, content-focused activities. Teachers can cultivate these literacy skills throughout various content-area instruction.

There are both negative and positive consequences that stem from instruction and lessons that include literacy and content area knowledge. These consequences can be identified as aspects of certain learning theories or frameworks pertaining to students and teachers. One of the positive factors is that students can be active in their own learning. When students are participants in the classroom, they can be allowed to practice the different literacy strategies they are learning. The learning theory that identifies students as active learners is the cognitive perspective (Ertmer & Newby, 2013). Information and instructional strategies that were intended to help educators also develop students' cognitive abilities. Another positive factor is that they contain parts of instructional strategies that can be linked to a behaviorist perspective since they desire to see a change in students' behaviors (Ertmer & Newby, 2013). Ultimately, the teachers want to see how students are able to use and understand the literacy related materials they are given during content-area instruction. In order for students to show what they have learned via literacy strategies, they must change their behavior by displaying their abilities and

understanding of the content. Unfortunately, some investigations lack evidence on student-lead activities and how well students are able to implement these strategies for themselves. One negative consequence is that there is very little implementation or data on how capable students are in practicing these literacy strategies on their own. Students should have the opportunity to interact with one another and practice their literacy skills during content-area instruction, which stems from the social/situational learning theory (Ertmer & Newby, 2013). Another concerning issue is lack of evidence or research supported data pertaining to how teachers are able to support the strategies being used in the classroom. There is also a lack of information pertaining to when and how teachers use reinforcement or punishment in their classrooms and its relation to students' learning outcomes. Every student is affected by the reinforcements or punishments being used in the classroom; and, this could affect how students respond to certain literacy strategies or whether or not they decide to use them again beyond the initial teaching. The use of reinforcements and punishments come from the social learning theory; and, it is unclear as to how literacy strategies may affect the way students learn and accept literacy instruction during content-area instruction. Despite the consequences associated with various learning theories and frameworks, such as social learning theory, cognitive perspective, or behaviorist perspective, it can be noted that there are different ways to integrate literacy into the content-areas in order for teachers to identify the best strategies that will work for their classrooms.

The Roles and Perceptions of Teachers. Content-area literacy being implemented in the classroom requires both teachers and students to understand what their roles are when interacting with new literacy strategies in a content-area besides language arts or reading. A teacher should be mindful of the instruction she is implementing while also being aware of the strategies and skills students cultivate when applying them to specific knowledge they are covering in class (Fang, Sun, Chiu, & Trutschel, 2014). Integrating literacy into content-area instruction can pose

a challenge to teachers, and therefore, it causes them to modify their own teaching methods and teach both content-area knowledge and literacy knowledge (Wilson, 2011). This will allow students to be exposed to a variety of situations in which they will have to apply their content-area and literary knowledge in order to gain a better overall understanding of the content. The value of content-area literacy must be taught and shown to students, and that is what a teacher is encouraged to do (Ming, 2012). A teacher must also use discretion and discernment when selecting when and how literacy skills should be taught during content-area lessons; keeping in mind that the ultimate goal is to broaden and deepen students understanding of the content-area knowledge (via reading and writing). The use of textbooks, magazines, newspapers, iPads, tablets, computers, etc. expose students to different ways that text can be presented to them in the classroom. In a way, the teacher acts as a guide who shows students where and how they can appropriately use the literacy skills they have developed when using a variety of different texts. Teachers must teach students how to use and incorporate literacy strategies effectively, so that the students are able to think and learn through text (Lacina and Watson, 2008). When a teacher introduces or emphasizes the need for students to practice certain literacy strategies in the classroom, students will gain a better understanding of the strategies once they are modeled by the teacher. Students who are given the opportunity to view modeling "not only learn the content, but learn how to approach the work of the discipline" (Lacina and Watson, 2008). Teaching students how to learn from text is two-fold; students should be taught explicitly how to read texts pertaining to certain content-area, and students should be taught how interdisciplinary connections can be identified and formed throughout content-areas (Lacina and Watson, 2008). In order to better prepare elementary students for the academic requirements of middle school, high school, and beyond, teachers are encouraged to incorporate literacy skills and strategies into all areas of the classroom (Moss, 2005). Students need opportunities to practice and develop

their literacy skills, and their teachers are the ones who are able to present them with these opportunities (Wilson, 2011).

Teachers at all grade levels and disciplines have different perceptions of the effectiveness and necessity of content-area literacy instruction. There are teachers who believe that content-area literacy instruction, such as reading and writing, should only be taught within the content-area disciplines (Wilson, 2011); for example, a high school science teacher should teach science related vocabulary and comprehension strategies to students who are in his science class, while a Spanish teacher will teach those same skills pertaining to the students in her class. Some teachers perceive that by incorporating literacy instruction into content-area instruction it takes time away from important content-area knowledge; and, with the added pressure of standardized testing, there are segments and portions of content-area instruction that may be deemed "more valuable" than literacy skills (Moss, 2005; Wilson, 2011). Then, there are those teachers who find value in incorporating literacy into content-area instruction. They recognize the diversity within literacy, in which text design becomes "available in different modes, such as images, spoken words, gestures, and three-dimensional models" (Wilson, 2011). Understanding that literacy covers a wide range of "readable" forms, as mentioned previously, teachers can then design instruction that meets students' literacy needs, as well as their knowledge within all content-areas. Some teachers believe that by allowing students to cultivate divergent understandings of text, it broadens the opinions of the students and gives them the opportunity to share their ideas with their peers (Wilson, 2011). Based on the research conducted by Wilson (2011), she concludes her article "A Social Semiotics Framework for Conceptualizing Content Area Literacies" by mentioning two implications for content-area literacy instruction. The first implication is that "disciplinary reading instruction can entail more than comprehension strategy instruction; it can also entail encouraging students to take a broad view of the uses and forms of

texts in each discipline" (Wilson, 2011). The second implication is that "when definitions of text are expanded beyond printed words, reading and writing instruction includes explicit attention to the characteristics of multimodal representations" (Wilson, 2011). The incorporation of multimodal experiences and representation gives students more opportunities to blend literacy strategies across subjects of study; and, it also gives teachers more opportunities to assess and monitor students' development of content-area knowledge (Hill, 2014). Teachers who recognize these two implications understand the importance of enabling and supporting students as they use and practice literacy skills in different content-areas.

The Roles and Perceptions of Students. Students, on the other hand, have different roles in understanding content-area literacy. They are encouraged to "think critically as they receive, process, and produce information" pertaining to a certain content-area while using their literacy skills (Ming, 2012). The students' aims are to increase and develop their literacy skills, such as writing, comprehension, and vocabulary, as they interact with different modes of literacy through the use of multimedia, written text, spoken word, etc.

One study conducted by Harmon, Wood, and Stover (2012) discusses four components to promote literacy engagement in subject matter disciplines. In the article, the authors mention how students are stimulated to become self-directed learners in which they begin to take more control of their own education. One component is to allow students to make choices about what they read or which activities to participate in, resulting in giving students more responsibility for their own learning. The second component refers to the need for accessible texts, or texts that are reading-level appropriate for individual students, to be used in content-area learning. Many students struggle with the demands placed on them to engage and read texts that are beyond their ability level, thus, creating a negative attitude towards reading in general (Senn, 2012; Connor et al., 2010). The third component targets rereading as a literacy strategy that can help students

gain more understanding of a text each time it is read. Students will experience some of the benefits associated with rereading, such as clarifying content-area specific information, monitoring comprehension, deepening understanding of conceptual ideas, changing perspectives to think differently, etc.. The fourth component is to support students' reading, especially when they engage with texts that are more challenging to them. Some supporting strategies for teachers many include scaffolding instruction or reading experiences for students (Connor et al., 2010). Students develop skill sets that they will use throughout their lives, such as reading informational texts or oral communication skills; therefore, they must be taught how to use literacy skills in a variety of contexts to prepare them for various situations (Wilson, 2011).

Although there are few studies solely dedicated to understanding the perceptions and beliefs students have on content-area literacy strategies, some articles do discuss reasons why students may agree or disagree with their implementation in the classroom. One of the main factors pertaining to students' decisions to use literacy strategies while focusing on content-area knowledge is directly related to the enthusiasm and positive relationship they have with their teacher. If students know that the teacher is genuinely interested in their academic success, they are more likely to incorporate the presented literacy strategies (Moje, 1996). A second factor determining if students will decided to use certain literacy strategies is based on the type of content they are learning. Each content-area teacher uses different and specific literacy strategies that apply towards their content; therefore, students studying certain content-area text and materials will likely employ those strategies presented and taught to them by the teacher of each particular content-area (Shanahan & Shanahan, 2008). For example, math texts require students to focus on the meaning of each word used in order for the content to be understood in a specific mathematical way, even down to the meaning of math symbols, equations, and algorithms (Shanahan & Shanahan, 2008). On the other hand, for content-areas within the sciences, such as

chemistry, teachers and students rely heavily on alternative representations of science related information through the use of pictures, graphs, charts, tables, or diagrams in order to gain a better understanding of concepts and ideas (Shanahan & Shanahan, 2008). Also, middle school and high school history and social studies literacy strategies may be closer linked to those that are employed in language arts classes. There is an emphasis on finding the author's purpose and noting the author's bias when reading historical texts since many types of literature pertaining to history comes from the author's point of view or his analysis of historical events (Shanahan & Shanahan, 2008). Thirdly, students' perceptions of teacher effectiveness may be based on the integration of the effective literacy strategies taught and supported by the teacher. If a student recognizes that a literacy strategy being used by the teacher is making a positive improvement in his own study, then he will be more likely to continue using that strategy. However, by the time a student reaches his high school years, he may already have an idea of which literacy strategies work for him when studying different content-area materials. Nonetheless, by teaching middle school and high school students content-area literacy strategies, the teacher is able to give them tools to succeed in their classes (Moje, 1996); therefore, with the knowledge that the teacher wants to give them strategies to help them better understand the content; this will help students feel empowered, and possibly more motivated, to incorporate these strategies both inside and outside of the classroom.

Educating the Educators. In order for a classroom to be a healthy learning environment, teachers can be encouraged to implement and integrate teaching methods and strategies that portray the best practices. This will help engage students in the content they are learning while also allowing the teachers the freedom to adopt different strategies that work best for their particular students' learning needs. Research has been conducted on the effectiveness of certain teaching strategies educators are taught to use in their classrooms. These teaching methods,

along with classroom management skills and learning strategies, are taught to educators as they continue to grow and cultivate approaches that they believe would work best in their own classrooms. Professional development opportunities, teacher workshops, and ongoing professional education are a few ways educators can keep up to date with developing techniques and policies (Moss, 2005). One article discusses the development of "digital natives," in which students growing up in contemporary society have become reliant on digital technology to survive in today's modern culture (Alvermann, 2007). This has caused educators to learn more about developing technologies and how they can be usefully incorporated into students learning (Alvermann, 2007). It also places an emphasis on the need for teachers to understand students identities in reading and how student view themselves as readers amidst the digitally savvy society in which they live (Alvermann, 2007; Hall, 2012).

A research study was conducted by Mitton-Kukner and Orr (2014) on pre-service teachers, or student teachers who are undergoing instruction and training before teaching in a classroom, and their connections between content-area literacy and content-area assessments. After completing a final exam for their class, some of the pre-service teachers discussed content-area literacy strategies as an essential part of their instruction and "understood the use of literacy strategies as multi-faceted, serving multiple assessment purposes in their classrooms" (Mitton-Kukner & Orr, 2014). Understanding how to incorporate literacy strategies into the content-areas yielded encouraging results as pre-service teachers reflected on how they had helped their students learn more of the content-area knowledge by creating more opportunities for metacognition, or the awareness of one's own thoughts. It also allowed the pre-services teachers to create and implement better forms of formative assessments, summative assessments, and even alternative assessments, thus, enabling them to gain a fuller understanding of each individual student's thinking.

Another research study conducted by Sewell (2013) explores the preferred literacy strategies of pre-service teachers over the course of a two year time period. After interacting with 150 pre-service teachers via an online instructional course on content-area literacy, I found that there were ten literacy strategies (out of the original 35 literacy strategies studied) pre-service teachers favored the most, which include the following: interactive word wall, analytical graphic organizer, fishbowl discussions, triple-entry vocabulary journal, quick write, discussion web, Bloom's critical thinking cue questions, knowledge rating guide, jigsaw, and problematic situation. All of these strategies were discussed in detail with the participants. Another conclusion I formulated was that teachers were more likely to implement and practice the content-area literacy strategies that they thought to be the most enjoyable. It was also found, based on this research, that pre-service teachers who observe the modeling of these various content-area literacy strategies would be more likely to practice them in their own classrooms. This presents the idea that if teachers are taught and shown how to implement and incorporate the use of content-area literacy strategies effectively in their classrooms, then they would be more likely to implement them and reap the benefits first hand while working with their own students.

Other forms of research conducted on content-area literacy and pre-service teachers include discussing and analyzing themes among pre-service teachers' beliefs and perceptions of content-area literacy strategies. One such research article focuses on a particular type of language-based approach to teaching content-area knowledge. In this study, Fang, Sun, Chiu, & Trutschel (2014) wanted to gain more information on the perceptions that inservice teachers had on a new language-based approach to content area reading. This new approach is called functional language analysis (FLA), and its main purpose is to provide teachers with a set of tools to encourage student engagement in systematically analyzing language patterns within a

text. It can also help students as they further discuss these language patterns in a group setting. FLA is a relatively new concept, and this study was designed to gauge how inservice teachers responded to reading a textbook about FLA. There were 39 inservice teachers (4 male, 35 female; 19 from elementary, 20 from secondary schools; 10 different district were represented) that participated in this study. They all enrolled in a summer web-based graduate level course, and during this course they were required to read a textbook about FLA. They were able to share their thoughts and analysis on this new language-based approach through weekly responses and online discussion on the readings. At the end of the course, they wrote a one-page reflection on FLA. The results of this study indicate that inservice teachers find the FLA approach to be interesting, challenging, enlightening, and potentially useful and usable in the classroom. However, it does require considerable administrative support if it is to be successfully implemented. School leaders and administrators need to provide teachers with resources and instructions that are necessary to appropriately and effectively practice FLA strategies in the classroom. The inservice teachers found FLA to be an approach that could complement the already implemented models of content area reading instruction. The authors further discussed how teachers that have implemented FLA have found it to be helpful and students have made progress concerning content-area literacy.

Similar to the research conducted by Sewell (2013), Jewett (2013) also studied teachers who were involved in a graduate level course and their training in various literacy strategies that could be incorporated into content-area learning. The purpose of this study was to gain a better understanding of how teachers identified the when, where, and how of using interdisciplinary literacy tools to engage students in content area literacy (primarily in science and math). To accomplish this goal, the author wanted to re-conceptualize an existing K-12 content area literacy course offered at a graduate level. Over the semester, the 140 teachers involved with this

course read and discussed materials, examined relationships between theory and practice, logged their ideas and beliefs on the subject matter, and interviewed professionals in the fields of science and math. The reflections and literacy profiles, or profiles built on what literacy related materials are used by scientists and mathematicians, allowed the author to identify the literacy strategies. Those literacy strategies pertained mainly to vocabulary acquisition, comprehension, and writing that the teachers found to be the most useful in the classroom. These teachers came from elementary, middle, and high school backgrounds (K-12). The courses were offered on-site at a university located in the southeastern United States during spring and summer semesters. The author concluded that the teachers had modified their definitions of literacy, recognized distinctive disciplinary language, and expanded their definitions of text within certain content area learning. Each cultural group or professional discipline area contains its own set of literacies, languages, and purposeful practices that make it unique. Therefore, what the teachers have learned during this study is that all content area literature must be treated differently due to differences in content knowledge and language being used. Different approaches must be used in the classroom when engaging content area specific texts in order to help students gain a more complete understanding of the information being presented.

With the integration of teaching literacy strategies in pre-service teacher programs, educators are given more opportunities to practice and reflect on those that work in their classrooms and further students' learning. More research pertaining to the education of teachers and content-area literacy strategies must be conducted for further study. Nonetheless, based on the research provided, there is a positive correlation between the amount of exposure and instruction teachers receive on content-area literacy strategies and how successful they are in following through with effective implementation. As education continues to evolve and change,

more research will be needed on the education of teachers and how it can be coupled harmoniously with the educational system, to advance the use of content-area literacy strategies.

Practices in Elementary School. The research investigation on elementary students and usage of content-area literacy is not as plentiful when compared to the research studies and articles written about middle school and high school students. The study of elementary classrooms incorporating content-area literacy strategies is an emerging phenomenon; it is recently a more prevalent topic because of the potential impact to increase students' literacy skills and overall academic success, beginning at earlier ages (Moss, 2005). There has been such a positive growth in elementary literacy achievement over the past few years, which could be a reason why not many educators have considered additional investigations into content-area literacy strategies (Shanahan & Shanahan, 2008). From the time they are born to the beginning of their teen years, students are learning more about the practices of reading and writing in their primary language (Roskos, Christie, & Richgels, 2003). Elementary students begin to learn and develop their literacy skills, and students continue to learn and cultivate skills throughout their schooling. Therefore, the teaching of content-area literacy strategies and skills could be advantageous if continued throughout each grade (Shanahan & Shanahan, 2008). Another factor as to why content-area literacy has not been strongly enlisted as an effective learning strategy for elementary students is because these students do not interact with many textbooks or large amounts of informational texts due to their emerging literacy skills (Moss, 2005; Roskos et al., 2003). Students are just beginning to incorporate different types of texts during their early elementary education; it's not until they reach the upper elementary, middle school, and high school grades in which they devote more time to textbooks and informational texts surrounding individual content-areas. Increasing exposure of elementary students to informational texts will begin the process of preparing them for the ultimate goal, in which they will become productive

adult citizens of society (Moss 2005; Reder, 2010). Almost all professional jobs require a person at some point to read and then understand, comprehend, interpret, analyze, synthesize, or summarize informational texts (Duke, 2000; Reder, 2010).

There have been limited studies conducted within primary grades to determine the effects of earlier exposure to informational and expository texts. A study conducted by Calo (2011) describes how two 2nd grade teachers used informational texts to engage their students to learn more about the world that they live in, while providing them with resources and literature to develop their individual literacy skills. The teachers employed teaching methods by giving students various materials to use (both fiction and non-fiction) and also balancing out their instructional strategies. They also discussed the connections of literacy strategies with their students when using informational texts in the classroom, such as the connections between reading and writing and the connections between literacy and content-areas. The goal that the teachers had for their students was for them to experience learning that was both relevant and meaningful. In order to accomplish this goal, the teachers shared texts and incorporated think-aloud instructional strategies that engaged students to demonstrate and cultivate their comprehension skills. The incorporation of content-area literacy via the Internet, magazines, leveled non-fiction books, newspapers, etc. encouraged students to interact with and better understand the world.

A research study that was conducted by Duke (2000) focused on the amount of time spent on informational texts within elementary classrooms. In her descriptive, observational study, Duke found that there was a scarcity of informational texts being used in first grade classrooms. During her 79 days of observation within the 20 first grade classrooms that participated in her study, the average amount of time spent with informational texts during whole-class written language activities was 3.6 minutes per day. Duke noted that most teachers

used read-alouds as the preferred instructional method when displaying informational texts to students; the time spent on read-alouds does not allow the students to engage with the texts on an individual level, thus, limiting their intimate exposure to these types of texts. While observing the workings in the classrooms, Duke said that she noted students reading and writing with informational text only five times during the entire 79 day observational period. She concluded that these findings gave reason for concern about the amount of time first grade students are exposed to informational texts, which ultimately limits their positive reinforcement opportunities for future interaction with these texts.

An article written by Kavin Ming (2010), who is an associate professor at Winthrop University, informs educators on how to improve students' literacy skills while also cultivating their content-area knowledge and understanding. In "10 Content-Area Literacy Strategies for Art, Mathematics, Music, and Physical Education," educators are informed of different teaching strategies and instruction methods that would help them integrate literacy into content areas (mainly art, mathematics, music, and physical education). Literacy was viewed as an avenue that students could use to express their understanding of the content and also for them to gain a better understanding of the content they were learning. Based on the author's point of view and personal research, she expresses her concern for integrating literacy into content-areas and her success in taking the initiative to learn more about the integration process and benefits. Through the integration of literacy into various content-areas, such as art, mathematics, music, and physical education, literacy becomes a source of information and expression for students. While integrating literacy into these areas, students take their learning to a new level of success. Students benefited from the literacy strategies because it strengthened their language and literacy abilities while also integrating new knowledge (related to content-area knowledge and literacy) into existing schema. The knowledge they gain from content and the connections they make

using literacy allow students to build on their prior knowledge. The author of the article emphasized that one must not focus on literacy as solely reading and writing strategies; however, one must view literacy integration as a pathway for students to connect to other content areas. Although many would categorize literacy as a topic more commonly found under language arts, there are many connections and strategies students can use in all content areas.

Research was also conducted on 2nd grade science instruction, which is described in the article "Content Area Literacy: Individualizing Student Instruction in Second-Grade Science" (Connor et al, 2010). It discusses how instruction on literacy can help students to further their understanding of science content as they learn via text, observation, and discussion. The researchers integrated comprehension strategies with science content to determine if it would be an effective way to support students' science learning. They began by creating their own science curriculum unit that would be implemented in five second grade classrooms in northern Florida that contained eighty-seven students total (47 boys, 40 girls). The curriculum incorporated the 5-E Learning Cycle (i.e. engage, explore, explain, elaborate, and evaluate) as a framework for each day of the unit. The students were first organized into strategic flexible groupings, which enabled the teacher to provide scaffolding to those students who required more learning support. Then, the reading materials provided were leveled for each of the learning groups since each group was created based on students' individual literacy skills. During the didactic timeframe, the students were also taught different literacy skills and techniques, such as reading expository text, decoding, how to use book headings, and learning advanced vocabulary. Once students understood how to use the materials provided to them (i.e. science journals and subject related texts), then they could build on the content-area knowledge and further their completion of their scientific research. At the end of the science unit and literacy instruction, students were given the post-test to assess their knowledge and understanding of the content and compared to the pre-

test before instruction began. Connor et al. (2010) concluded that all students made growth in science content despite their differences in literacy skill sets. Also, students' post-test literacy scores improved in all four of the assessed categories pertaining to the open-response questions on the test: number of words, words spelled correctly, sentences, and multisyllabic words used.

Another study was designed to reveal specific types of science instruction used to improve 2nd and 3rd grade students' content-area literacy skills within an academic year. This study conducted by Connor et al. (2012) followed the science instruction given to students at the elementary level in order to find any content-area literacy strategies that helped to improve students' content-area knowledge, vocabulary, and reading skills. For those 2nd grade students who initially had weaker literacy skills, they improved with the integration of reading and discussing the expository texts used during science content-area instruction and activities. This supported the students' vocabulary acquisition and content-area knowledge, thus, supporting their reading skills as well. The 3rd grade students who displayed the most improvement in their literacy skills were also the students who lacked initial literacy skills before the instructional methods were integrated into the science content. Based on the collected data and research conclusions, 3rd graders displayed more improvement based on the more didactic teacher-managed lessons. This contrasts the findings that show how the 2nd grade students benefited more from the interactive teacher-scaffolded discussions and experiments. The incorporation of literacy strategies, scaffolded instruction, discussions, and hands-on activities can benefit different types of learners. However, as students become more aware of their own academic strengths and weaknesses, they also learn more about the instructional and literacy strategies that benefit them individually. This study stresses the importance of introducing and integrating content-area literacy strategies as early as 2nd grade in order to prepare, develop, and engage students' using a variety of literary resources to further content-area knowledge.

In the article entitled "Developing Literacy Appreciation and Literacy Skills: A Blueprint for Success," editors Flood and Lapp (1994) discuss how literacy appreciation and skills are still being investigated in order to develop strategies that can be incorporated into the best practices for the classroom. The article mentions two different instructional paradigms: the traditional use of drill and practice materials and the use of literature response groups. When designing curriculum for elementary students, both of these instructional methods can be incorporated into instructional practices to further literacy practice and understanding. The following is a list of seven literacy strategies that can be used in primary grade classrooms: selecting a book (student choice while possessing good qualities for further discussion); encouraging connections (access prior knowledge and interdisciplinary connections); read aloud (modeling reading voice with expression); write a response to the story (use of literature journals and share ideas with peers); have a discussion (whole class, small group, or one-on-one with teacher or peer); revisit the story for specific purposes (draw from discussions and prior knowledge); extend to other stories (transition to other texts by reading along, reading with a partner, participating in readers' workshops). Each of these literacy strategies are effective ways to engage students in meaningful discussions and critical thinking pertaining to the content-area being taught.

The elementary classroom has not received as much attention researching skills, strategies, instruction, or programs pertaining to content-area literacy. The topic of content-area literacy at the primary level has had limited investigation by researchers in the past; however, the increasing concern of students' reading improvements across the U.S. within recent years has brought this topic to the forefront of the elementary classrooms once again. Most of the studies regarding this topic discuss qualitative research methods used to gain more information. Further research and investigation must be conducted on a quantitative level in order to obtain more measurable evidence of effective content-area literacy strategies being used in elementary

classrooms. The current study investigation focuses on the use of content-area literacy strategies within elementary classrooms using both quantitative and qualitative research methods, to accurately portray the data obtained.

Methods

Participants. The participants of this research study consisted of elementary students (K-4th grade), classroom teachers, and teacher aides from Sanford Christian Academy (SCA). The school of SCA has 9 full-time staff personnel and 12 volunteers, all of whom have varying levels of degrees and experience. All staff members and volunteers believe in the school's goals and mission to cultivate students' spiritual growth and to partner with the families associated with the school to further their students' academic success. After meeting with the administrators of SCA, I gained verbal permission and approval from the principal and executive administrator. The teachers and teacher aides were consulted as to which students and classes would be most appropriate to conduct the study. The teachers readily agreed to work with me to allow surveys and content-area testing to be administered to their students before the implementation of the content-area lessons. I volunteered at the school before administering any research related investigation in order to interact with students so that they would feel comfortable working with me in combination with their own teachers and teacher aides.

The IRB's permission was attained and the appropriate permission forms were signed from all participating research members. The teacher survey consisted of questions about demographic information along with open-ended and fill-in-the-blank questions pertaining to the usage of content-area literacy instruction (Appendices E and F). The student reading attitude survey consisted of rating scale questions to display their attitude towards recreational and academic reading. The students also took a pre-test and post-test before and after the 9 social studies lessons on social studies content-area knowledge to display academic growth (Appendices A and B). Both pre-tests and post-tests consisted of the same questions, which included multiple choice and short answer questions. All forms and tests were collected and

analyzed to identify any trends among grade levels or groups of students after teaching the 9 content-area lessons.

Sanford Christian Academy Philosophy of Education, Mission, & Goals. The school of Sanford Christian Academy (SCA) is a private, non-profit Christian school that was founded in 2010. It is a ministry that is associated with its home church of Calvary Baptist Church in Sanford, Maine. Since the beginning of its formation, the school seeks to provide students with an education that is fully founded on biblical truth and knowledge. The Christ-centered learning environment gives students the opportunity to learn and develop mentally, physically, socially, emotionally, and spiritually while pursuing academic excellence. All of the elementary classrooms are multi-grade level and each of them contains a classroom teacher who has had undergraduate or graduate degree as a Christian educator. SCA believes that Christian education is "a joint responsibility of the home, church, and school;" therefore, they develop working relationships with the parents/guardians and families associated with the students who attend the school (Sanford Christian Academy, 2014). SCA's mission is "to assist parents in the training of their children to conform to the image of Jesus Christ" (SCA Handbook, 2014). The philosophy of education and purpose of SCA is to "train [each] student in the knowledge of God and to give [each] student a superior education" (SCA Handbook, 2014). The educators and administrators associated with SCA abide by the school's statement of faith and guidelines for Christian character, which allows them to build a framework for students' spiritual well-being. They have the responsibility of "molding the life and character of each of their students to give a good foundation for each child's future" (SCA Handbook, 2014). The primary goal for SCA is to transform students' lives as they are taught biblical truth and Christian principles on how to live a godly life. This also means that students are expected "to exemplify a Christian lifestyle outside of the school realm" (SCA Handbook, 2014). More information about SCA can be

found on the website at http://calvaryofsanford.org/acadamy/#aboutsca or in the SCA handbook at http://calvaryofsanford.org/wp-content/uploads/2015/09/Parent-Student-Handbook-2014-2015.pdf.

Table A: Population of Students

Grade	n = Control Group	n = Experimental Group
Kindergarten	4	3
1st grade	4	3
2nd grade	3	4
3rd grade	2	3
4th grade	3	3

Table A: A table organizing the population of Kindergarten, 1st grade, 2nd grade, 3rd grade, and 4th grade students based on the randomly assigned groups.

Instrumentation. The instruments used in this study included the following: demographic questionnaire for teachers, content-area literacy survey for teachers, group discussion and interview questions for teachers, reading attitude survey for students, and a pre-test and post-test on content-area knowledge for students (Appendices A through G). The demographic questionnaire for teachers was developed to understand teachers' and teacher aides' educational training and experience. The content-area literacy survey for teachers was used to collect data on their attitudes and usage of literacy strategies during content-area instruction throughout the school day. The reading attitude survey for students was used to gather information about students' attitudes towards recreational reading and academic reading. The surveys allowed me to identify trends or common ideas among the participating educators and students. The social studies content-area pre-tests and post-tests were used to identify the academic growth made by

students within content-area knowledge. The change students made in their writing samples provided by the short answer questions from pre-tests to post-tests were also analyzed.

Survey and Test Development. I created some of the surveys used in this study and others were gathered from other resources (Appendices C and D, Appendices F and G). The students' reading attitude survey was used from the "Elementary Reading Attitude Survey" with permission courtesy of McKenna and Kear (1990). I developed the teachers' survey for data collection purposes. I developed the social studies content-area pre-tests and post-tests using the curriculum provided by the school (Appendices A and B). The questions covered the content that was taught during the 9 social studies lessons. Students completed the pre-test before the instruction was given, and then they completed the post-tests as a summative assessment of the content-area knowledge they gained from the lessons. There were 12 multiple choice questions and 3 short answer questions. There were 2 non-target multiple choice questions that acted as an internal consistency among students as they completed the pre-tests and post-tests. The test questions were developed from the curriculum used for the lessons. All surveys and tests were provided in paper-based format, in which all students had adequate time to answer all of the questions to completion.

Personal Bias. The bias that would need to be addressed for this research study is that I have a vested interest in the success of the students that I worked with in the experimental groups of the study, several of whom attend my home church. Also, I have a bias for the usefulness of literacy strategies in the facilitation of teaching. However, the implementation of the lessons and content-area knowledge were straightforward and synonymous with the curriculum agreed upon by the school administrators and teachers. The identical subject curriculum for the social studies lessons were taught to all students in a similar grade, but the experimental group received additional instruction with literacy strategies. Even though this study was implemented in a

certain private education institution, I have a bias in which the study has implications for all schools and classrooms at the elementary level.

Procedure. After all consent forms were signed and collected, I administered the content-area knowledge tests and reading attitude surveys (pre-tests) to all students during a convenient time for their classroom teachers. The instructional period consisted of 9 social studies content-area lessons, which were taught to both the control groups and experimental groups of students (randomly assigned by grade level) (Table A). The students in the control group remained under the instruction of the teacher aide, while the students in the experimental group transferred to my instructional guidance. Upon the completion of the social studies lessons, all students were given the exact same reading attitude surveys and content-area tests (post-tests). Any other forms, such as teacher demographic information or teacher surveys, were collected upon their completion. Once the student data was completely analyzed, I met with the teachers and teacher aides over a complementary dinner to discuss further usage of literacy strategies in content-areas and the overall results of the study (group discussion).

All paper forms, surveys, and tests were analyzed and summarized. Using computer programs, such as Microsoft Word, Excel, and PowerPoint, I was able to graph and chart the data. Teacher surveys and discussion points were tabulated in an effort to summarize and identify common attitudes and practices. The responses were obtained along the following lines: favors/neutral/not in favor, amount of time dedicated towards content-area literacy practices or strategies implemented, satisfied/dissatisfied, rewarding/not rewarding, important/not important, or always/often/sometimes/rarely/never. The survey and group questions were evaluated to understand the attitudes of teachers' and teacher aides' on content-area literacy. I gained insight and information based off of the short answer responses, which allowed me to collate the current practice of content-area literacy. The discussion and interviews allowed the teacher and teacher

aides to ask questions pertaining to content-area literacy strategies and practices, especially those that were used in the classroom during the instructional timeframe.

Results

Overview of Population. The results of this study were compiled from students at Sanford Christian Academy in Sanford, Maine, grades Kindergarten through 4th grade. The total sample size of students was 32 students who were divided as follows: 7 students in Kindergarten, 7 students in 1st grade, 7 students in 2nd grade, 5 students in 3rd grade, and 6 students in 4th grade. The students were further separated via random selection into the control group (Kindergarten n=4; 1st grade n=4; 2nd grade n=3; 3rd grade n=2; 4th grade n=3) or experimental group (Kindergarten n=3; 1st grade n=3; 2nd grade n=4; 3rd grade n=3; 4th grade n=3). The control group of students from each grade level continued with the uninterrupted social studies content-area teaching by their regular educators. The experimental group of students from each grade level received social studies content-area teaching, along with additional instruction on literacy skills and strategies to facilitate their learning of the content-area knowledge. The literacy skills and strategies emphasized covered the following categories: print awareness, phonological awareness, phonics, vocabulary, fluency, comprehension, and writing.

SCA Student Data – Content-Area Knowledge. Analyzing the data collected via pre-test and post-tests of content-area knowledge of social studies before and after instructional lectures is demonstrated in Figure 1. Students' knowledge and understanding of content-area information improved across all grades after instruction was given based on the analysis of results from their pre-test (40%) and post-test scores (71.3%). This improvement is further displayed in Figure 2 by the compiled results of students' pre-test and post-test scores in the control and experimental groups. The experimental groups made a 30.6% academic increase while the control groups made a 31.9% increase in content-area knowledge. Based on the analyzed results of all pre-test and post-test scores, there was a statistically significant gain in content-area knowledge across all

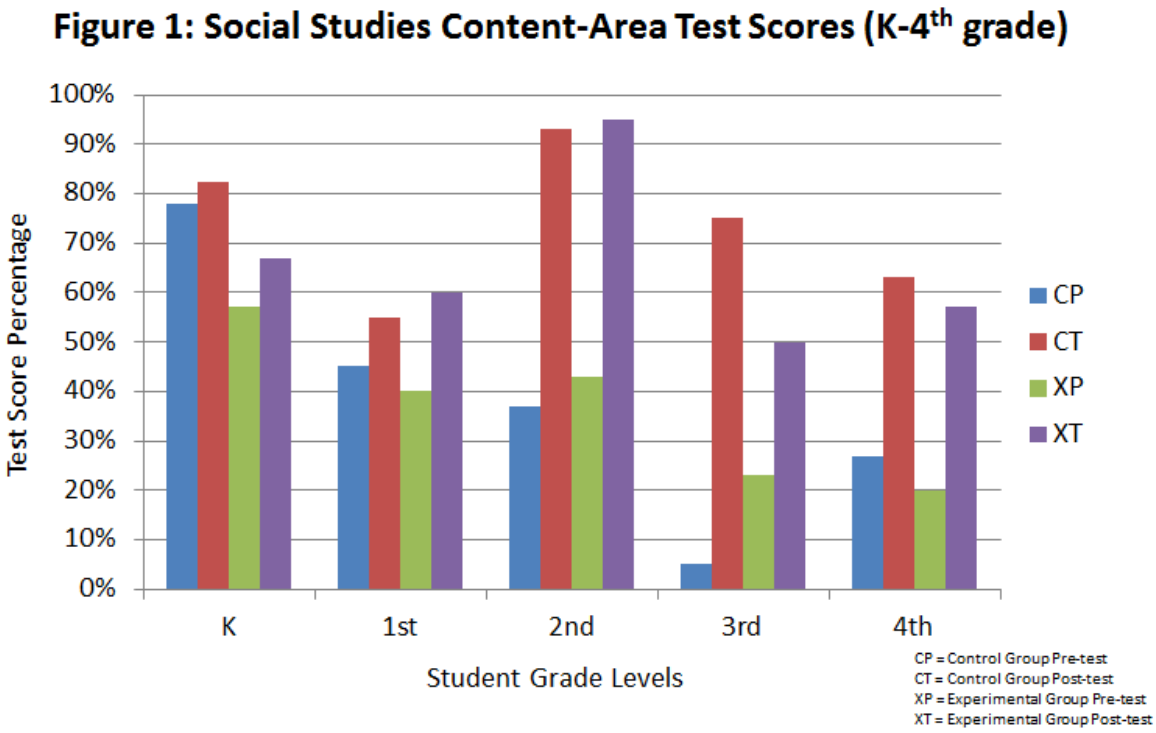

Figure 1: A bar graph of all students' social studies content-area test scores (pre-test and post-test) divided into each grade level.

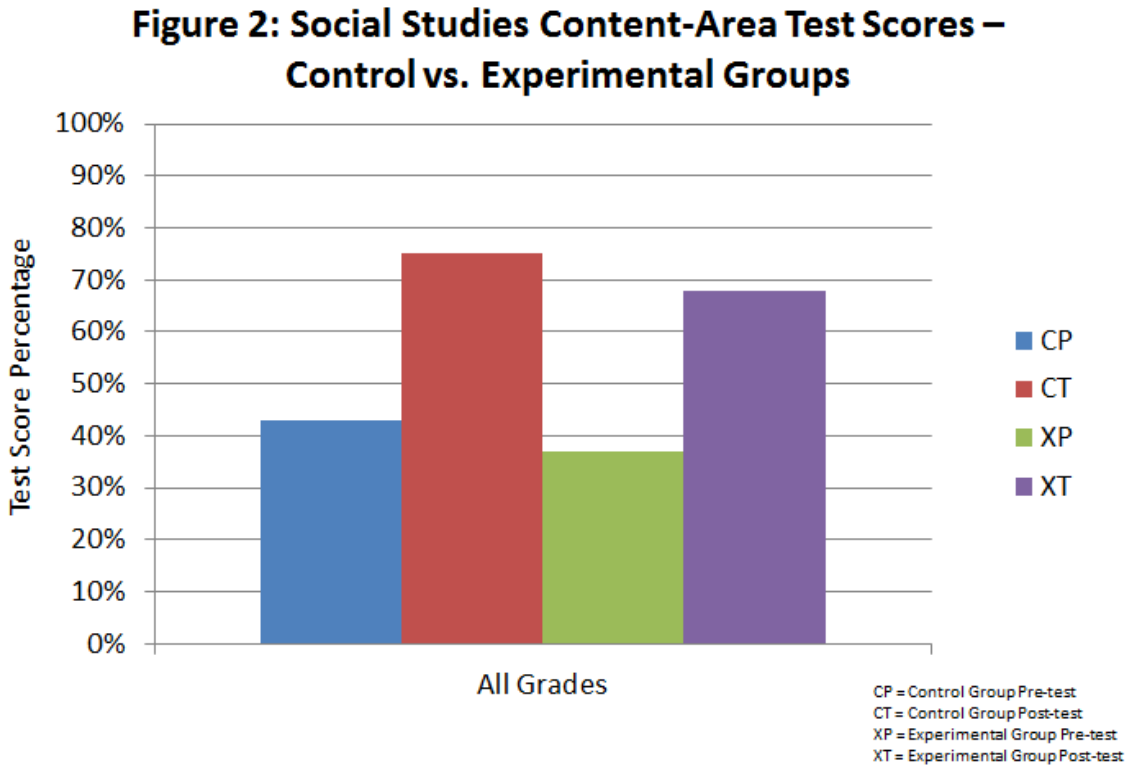

Figure 2: A bar graph of all students' social studies content-area test scores (pre-test and post-test) divided into control group and experimental group (all grade levels included).

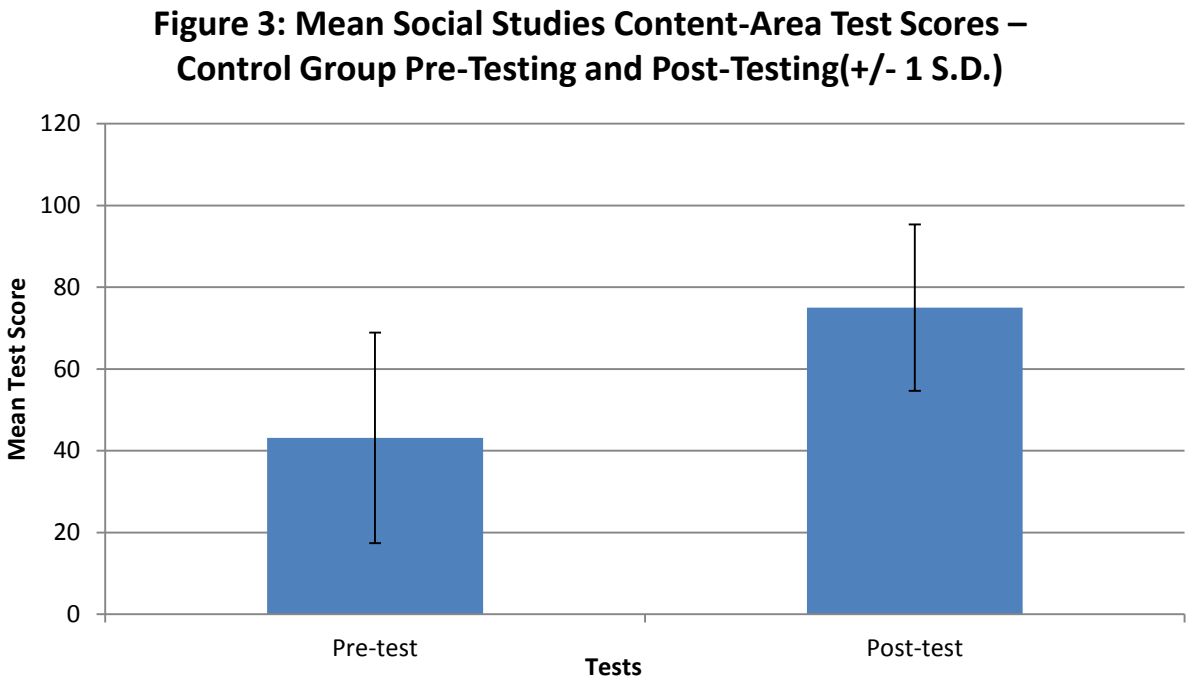

Figure 3: A bar graph displaying the mean social studies content-area test scores (pre-test and post-test) of the control group as a whole (n=16) with their appropriate standard deviations.

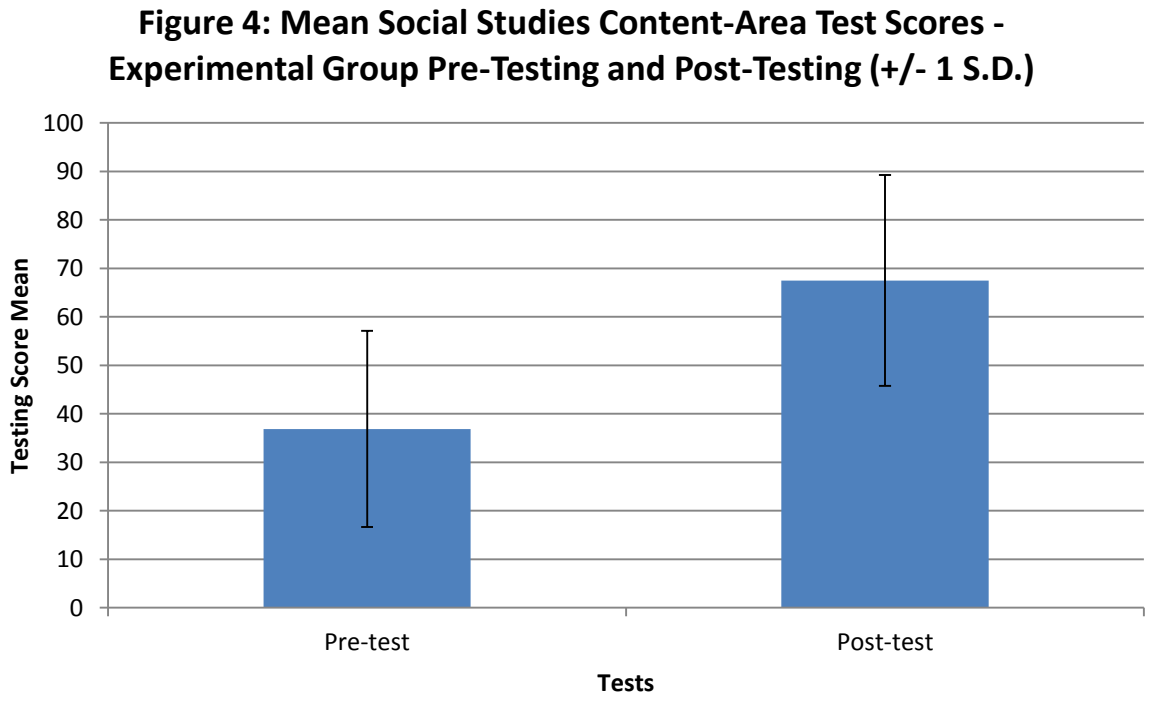

Figure 4: A bar graph displaying the mean social studies content-area test scores (pre-test and post-test) of the experimental group as a whole (n=16) with their appropriate standard deviations.

grades of both groups (with a t Stat of -4.64) (Figure 2). The absolute value of the t Stat (-4.64) is greater than the t Critical two-tail (2.26) and a p value of 0.001; therefore, we can reject the null hypothesis that there is no statistical difference between the two data sets (pre-test and post-test scores for all groups of students). However, the overall difference in content-area knowledge gains made by the students between the control group and experimental group was similar. Figure 3 and Figure 4 display the mean pre-test and post-tests for control verses experimental groups, which were 43.1% and 75% vs. 36.9% and 67.5%, respectively.

As an internal control factor, Figure 5 demonstrates the results of non-target questions evaluated during pre-test and post-test assessment timeframes. These were two questions examined by students from social studies content-area knowledge that were not taught during class time. The results in Figure 5 demonstrate that there was no improvement of knowledge in social studies content-area not taught to the students. Comparing Figure 5 to Figure 2, 3, and 4 demonstrates that all students began at approximately 40% prior knowledge of the social studies content-area materials before instruction. When taught the content-area knowledge, the students achieved an average of 70% content-area knowledge after the 9 social studies lessons. When content-area knowledge was not taught to the students (non-target questions, Question #4 and #7), students' knowledge remained at approximately 40% of the content-area knowledge with post-test assessments.

When the data from Figure 1 is reconfigured to analyze the difference from pre-test to post-test examination, the difference in content-area test scores is exhibited in Figure 6. The 2nd grade population of students (n=7) made the greatest academic gains as a whole grade level, in which the control group (n=3) made a 56% increase in content-area knowledge and the experimental group (n=4) made a 52% increase in content-area knowledge (comparing their pre-test and post-test scores). The 2nd grade experimental group achieved the highest experimental

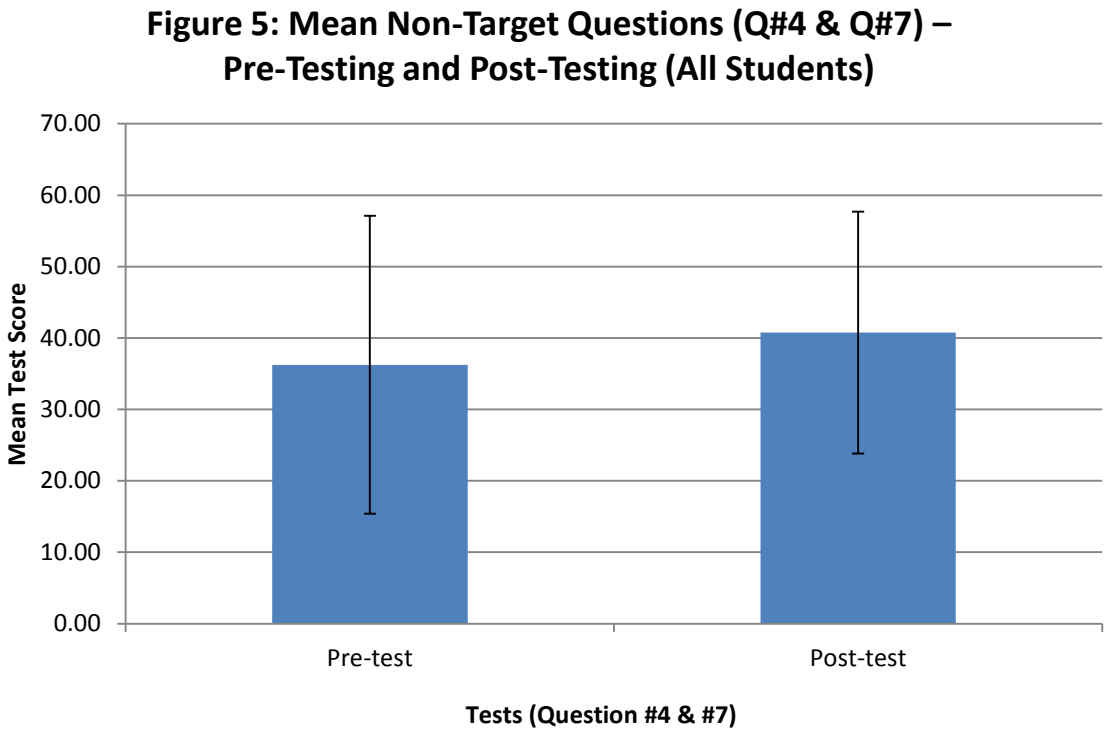

Figure 5: A bar graph displaying the mean non-target questions, Question #4 & #7, from the pre-test and post-test scores from all students (n=32) with their appropriate standard deviations.

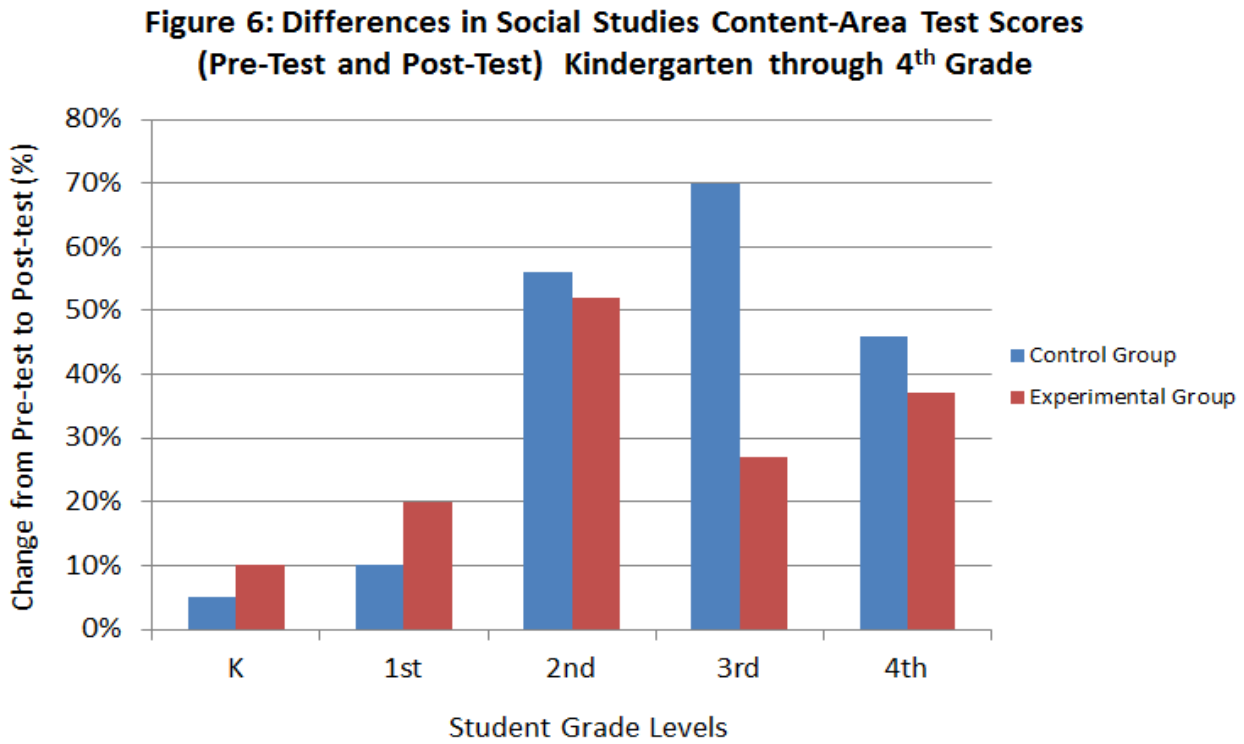

Figure 6: A bar graph comparing the difference in pre-test and post-test social studies content-area test scores of all students (K-4th grade).

group post-test score of all the grades. Also seen in Figure 6, the 4th grade groups of students (n=6) also made considerable gains in content-area knowledge after instruction was given to both the control (n=3) and experimental groups (n=3).

When further viewing the scores from each group based on the individual grade levels, there were a few grade levels that appeared to have varying results between the control and experimental groups based on the students' pre-test and post-test scores, as displayed in Figure 6 specifically Kindergarten, 1st grade, and 3rd grade. The student populations of these grades are displayed in Table 1. The raw scores of each of these grades are delineated in Table 2.

The students within the Kindergarten control and experimental groups displayed the greatest amount of knowledge prior to instruction as outlined in Table 2. As a result, these two groups (Kindergarten control group and experimental group, n=7) made minimal amounts of academic growth based on the results comparing their pre-test and post-test scores. The K control group (n=4) displayed a greater knowledge of the content-area materials before instruction was given when compared to the K experimental group (n=3), as seen in Figure 7. The K control group made a 5% gain in content-area knowledge while the K experimental group made a 10% gain in content-area knowledge. Figure 7, however, documents that the trend of improvement of the experimental group over the control group in the small sample size is not statistically significant.

The 1st grade students (n=7) in the control and experimental groups displayed a similar pattern as the Kindergarten groups documented in Table 2. The 1st grade control group (n=4) displayed more extensive knowledge of the content-area materials than those students in the 1st grade experimental group (n=3), during pre-testing. However, the 1st grade experimental group made greater academic gains (20% increase) in content-area knowledge than the 1st grade control group (10% increase). The mean 1st grade experimental group's improvement in post-test scores

Table 1: Population of Students

Grade	n = Control Group	n = Experimental Group
Kindergarten	4	3
1st Grade	4	3
3rd Grade	2	3

Table 1: A table organizing the population of Kindergarten, 1st grade, and 3rd grade based on the randomly assigned groups.

Table 2: Raw Scores of Social Studies Content-Area Tests for K, 1st, and 3rd Grade Students

Grade and Group		Student's Individual Pre-test Score	Student's Individual Post-test Score	Student's Individual Difference between Scores
Kindergarten Control	1.	80%	80%	0%
	2.	80%	90%	10%
	3.	70%	80%	10%
	4.	80%	80%	0%
Kindergarten Experimental	5.	60%	70%	10%
	6.	40%	60%	20%
	7.	70%	70%	0%
1st Control	8.	40%	40%	0%
	9.	50%	50%	0%
	10.	60%	80%	20%
	11.	30%	50%	20%
1st Experimental	12.	30%	80%	50%
	13.	50%	40%	-10%
	14.	40%	60%	20%
3rd Control	22.	10%	50%	40%
	23.	0%	100%	100%
3rd Experimental	24.	40%	60%	20%
	25.	0%	60%	60%
	26.	30%	30%	0%

Table 2: A table organizing the raw scores of the social studies content-area tests (pre-test and post-test) and the difference between the two scores based on grade level, group membership, and numbered individual students.

when compared to the pre-test score was 20% compared to those of the control group, 10%. Despite the mean improvement per group, the small sample size (control group n=4 and experimental group n=3) results in no statistical significance between the experimental groups' vs. control groups' test score improvement, as seen in Figure 8.

The 3rd grade groups made vast improvements from their pre-test and to their post-test content-area scores, documenting substantial academic gain. Based on the data represented in Table 2, the 3rd grade control group (n=2) made the largest increase in content-area knowledge from pre-test to post-test (with a 70% increase) when compared to all other grade levels and groups of students (Figure 1 and Figure 6). The 3rd grade experimental group (n=3) also made an improvement in content-area knowledge after instruction was given. The experimental group of students scored slightly higher on content-area knowledge before instruction was given (pre-test performances); and after instruction was given, they increased their testing scores by 27%. As demonstrated in Figure 9, there was no statistical difference between the control group and the experimental group.

When reviewing and analyzing the short answer responses made by the students from the pre-test and post-tests, there was a noticeable difference in the amount of correctly used words to answer each question (Table 3 and Figure 10). Overall, the control groups of students (n=16) collectively increased the number of correctly used words to answer the questions by 263 words. The experimental groups of students (n=16) collectively increased the number of correctly used words to answer their short answer questions by 307 words. The experimental group as a whole used 44 more words to give a complete answer for the post-test short answer questions compared to the students who answered from the control group. However, there was no statistical significance of the data collected based on the amount of words used for these questions, due to the large scatter of data as exhibited in the standard deviation graphed in Figure 10.

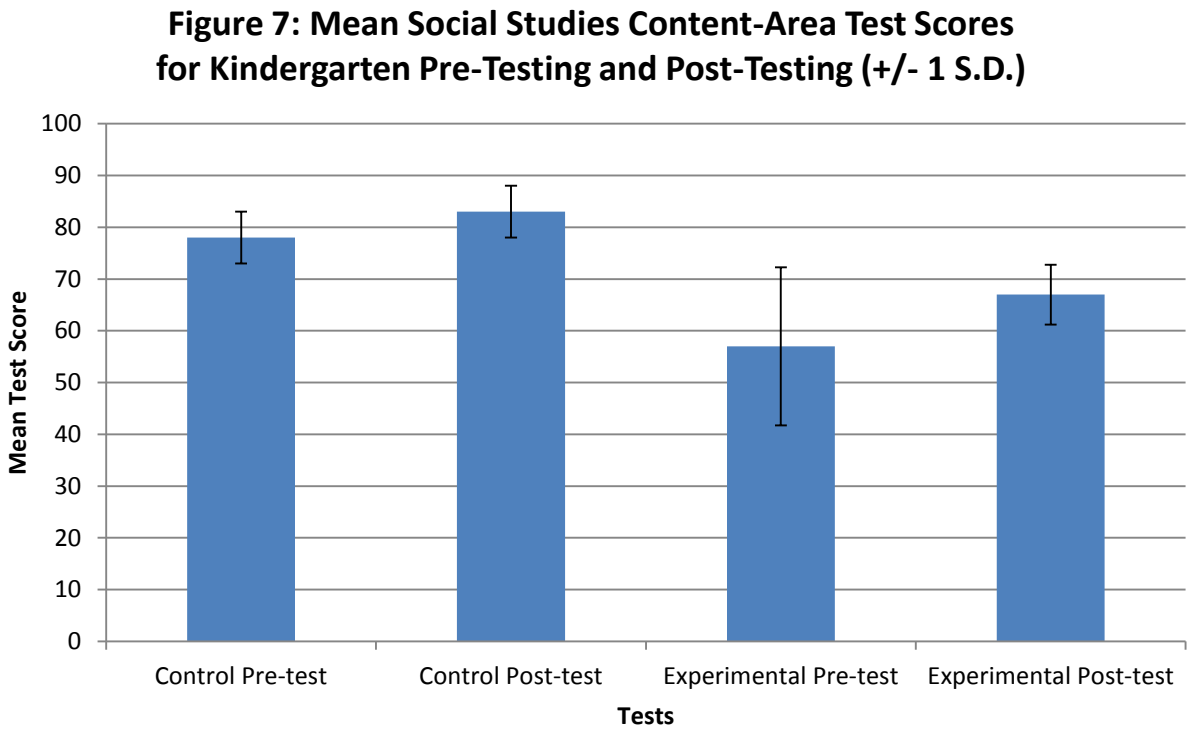

Figure 7: A bar graph displaying the mean social studies content-area test scores (pre-test and post-test) of the Kindergarten group as a whole (n=7) with their appropriate standard deviations.

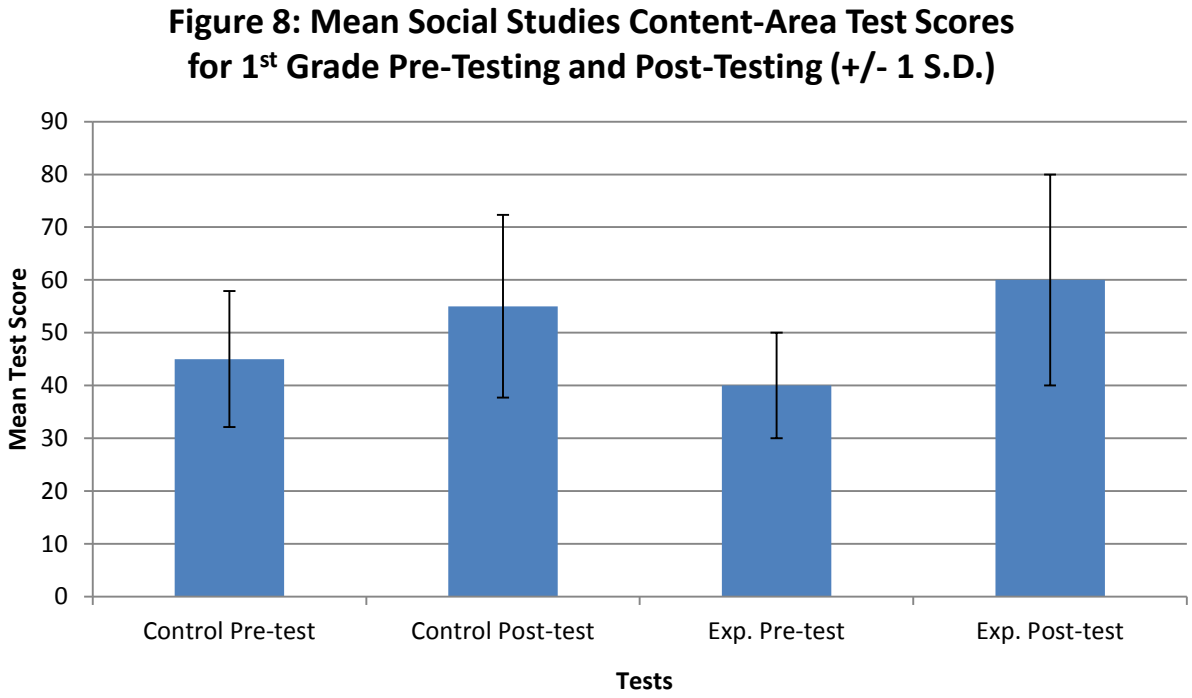

Figure 8: A bar graph displaying the mean social studies content-area test scores (pre-test and post-test) of the 1st grade group as a whole (n=7) with their appropriate standard deviations.

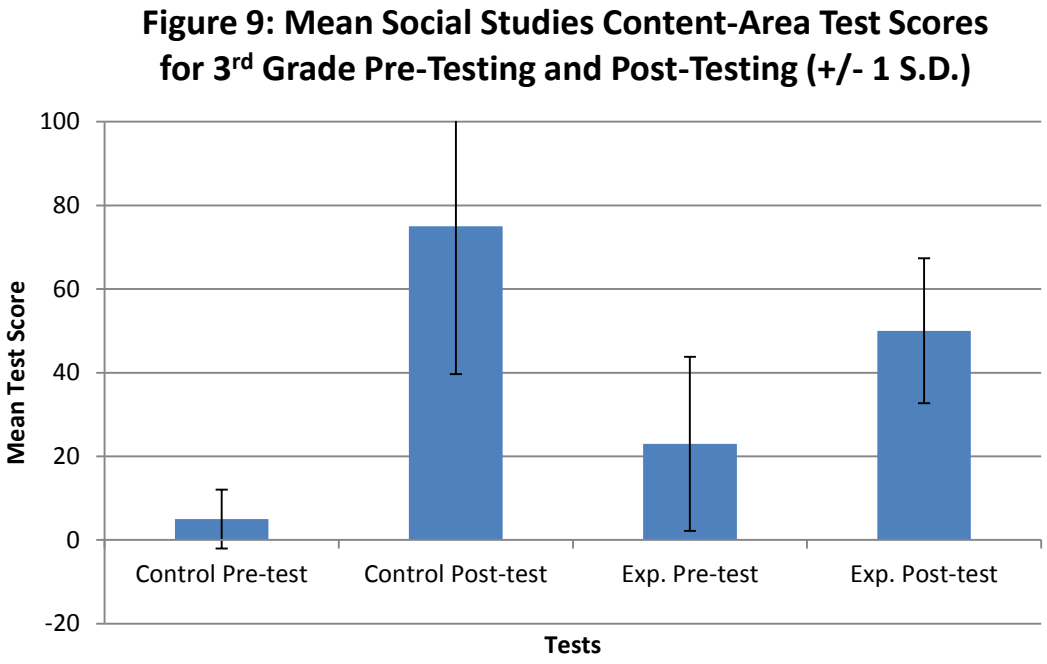

Figure 9: A bar graph displaying the mean social studies content-area test scores (pre-test and post-test) of the 3rd grade group as a whole (n=7) with their appropriate standard deviations.

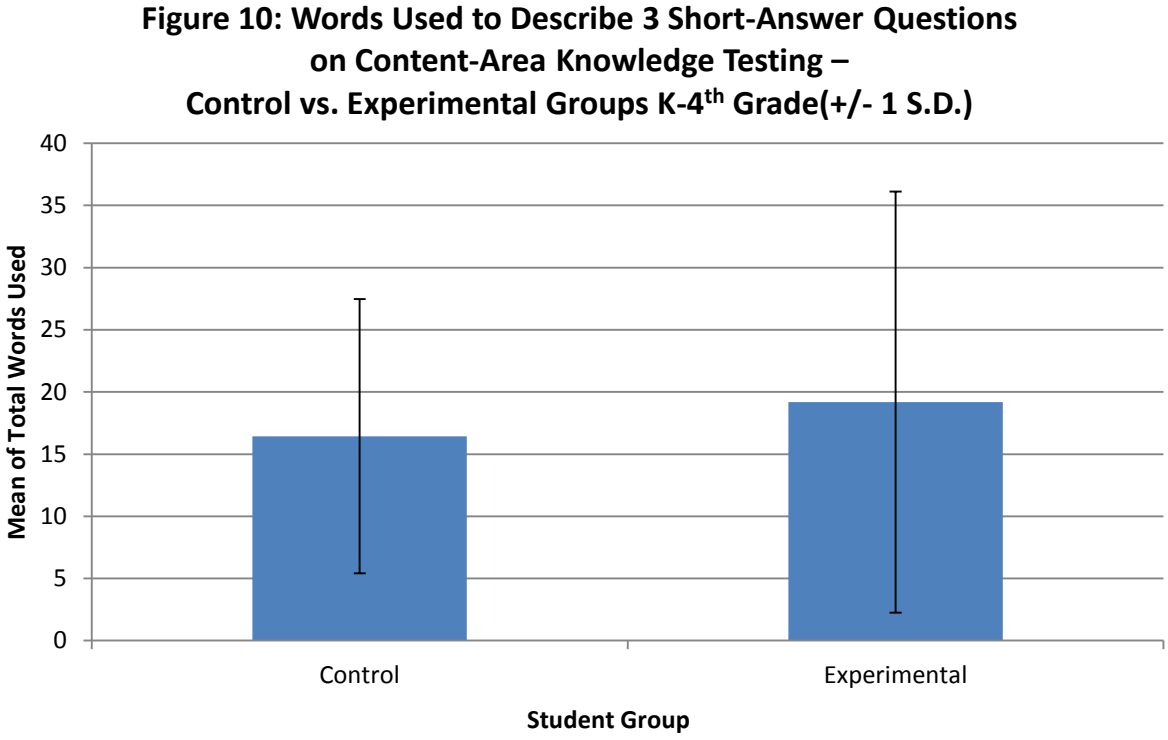

Figure 10: A bar graph displaying the mean of words used to describe three short-answer questions on the social studies content-area tests (pre-test and post-test) for both the control (n=16) and experimental groups (n=16) with their appropriate standard deviations.

Table 3: Words Used to Describe 3 Short-Answer Questions on Content-Area Knowledge Testing – Grades K through 4th Grade (All Groups and Students)

Grade and Group	#	Short Answer No. 1		Short Answer No. 2		Short Answer No. 3		Total Change
		Pre-	Post-	Pre-	Post-	Pre-	Post-	
K Control	1.	1	8	4	4	1	14	20
	2.	15	23	6	11	6	18	25
	3.	6	7	3	9	9	19	17
	4.	10	15	18	11	14	14	-2
K Experimental	5.	5	31	4	24	1	15	60
	6.	2	23	3	9	13	20	34
	7.	17	11	5	4	8	4	-11
1st Control	8.	1	17	4	9	0	0	21
	9.	1	5	1	0	0	0	3
	10.	2	17	0	2	4	10	23
	11.	4	15	7	19	13	17	27
1st Experimental	12.	10	23	6	15	0	18	40
	13.	1	9	3	3	5	4	7
	14.	5	10	0	10	3	10	22
2nd Control	15.	0	0	0	6	0	5	11
	16.	6	23	0	5	0	5	27
	17.	0	15	0	9	0	19	43
2nd Experimental	18.	0	0	0	0	0	14	14
	19.	0	0	0	0	0	0	0
	20.	21	21	0	0	4	12	8
	21.	0	25	0	1	0	6	32
3rd Control	22.	0	8	0	0	0	4	12
	23.	0	0	0	0	0	3	3
3rd Experimental	24.	0	11	0	6	0	0	17
	25.	0	15	0	0	0	0	15
	26.	0	0	0	0	0	4	4
4th Control	27.	0	0	0	0	0	7	7
	28.	0	6	0	4	0	3	13
	29.	0	10	0	0	0	3	13
4th Experimental	30.	0	11	0	0	0	0	11
	31.	0	18	0	7	0	8	33
	32.	0	12	0	5	0	4	21

Table 3: A table organizing the amount of words used to describe three short-answer questions on the social studies content-area tests (pre-test and post-test) based on grade level, group membership, and numbered individual students.

SCA Student Data – Reading Attitude Survey. After reviewing the students' reading attitude surveys, the results appeared random with a wide scatter of the data on pre-testing and post-testing (Figure 11).

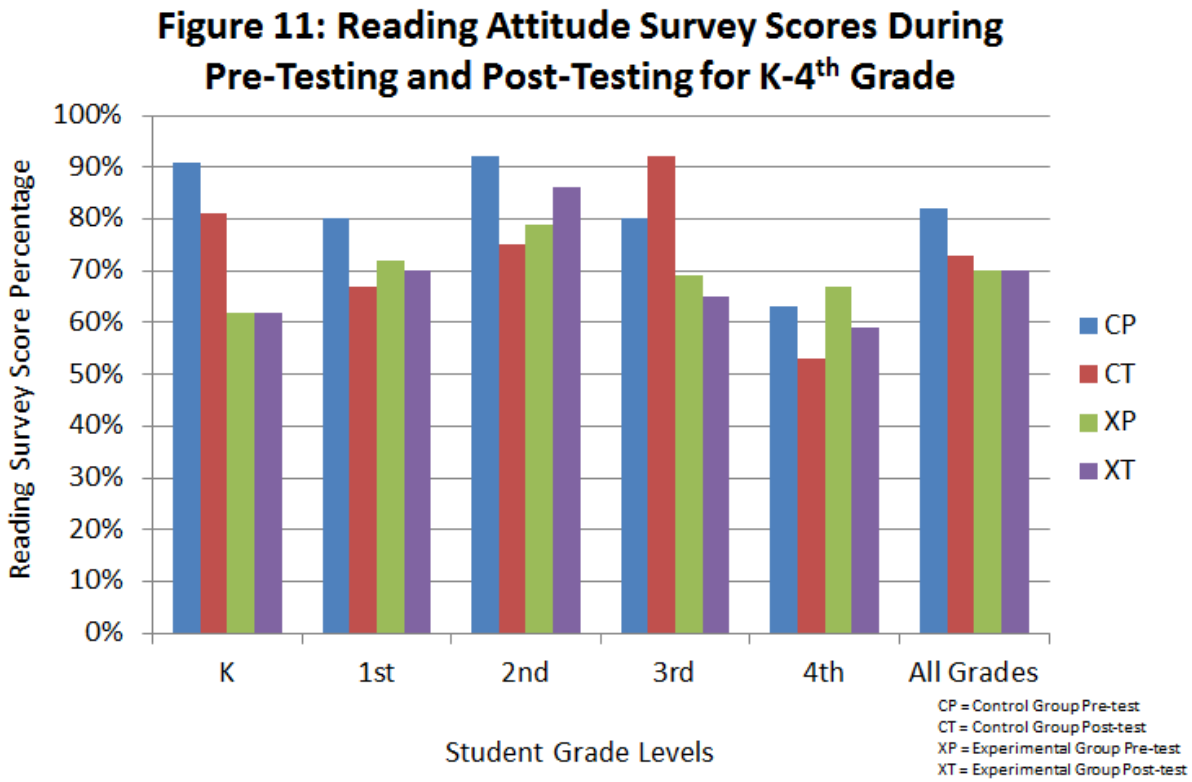

Figure 11: A bar graph displaying the reading attitude survey scores during the pre-testing and post-testing time frames for Kindergarten through 4th grade based on grade level and group membership.

When the pre-test reading attitude surveys from all students (n=32) prior to the study were evaluated, the group averaged a pre-test reading score of 61% (a combined average of the CP and XP for the control and experimental groups' pre-test reading attitude survey scores). Therefore, students had a perceived desire to read books, read school worksheets, and chose reading over other activities at home or in school 61% of the time. Their post-test scores were calculated at 57% (n=32) after the 9 lessons of social studies content (a combined average of the CT and XT for the control and experimental groups' post-test reading attitude survey scores).

This showed a decrease from their initial pre-test reading attitude survey score of 61%, which resulted in a 4% overall decrease in attitudes towards reading.

The students' data, represented by Table 4, shows how some students' reading attitude survey scores decrease, increased, or even remained the same. When comparing the pre-test and post-test reading attitude survey scores, the experimental and control groups of students had different attitudes towards literacy. The experimental groups (n=16) had more students increase their reading attitude survey score, which reflected a greater positive attitude control group. The experimental group had 5 students who increased their post-test survey scores while the control group only had 2 students who increased their post-test survey scores. Also, the control group of students had more students decrease their reading attitude survey towards reading in general, when compared to the score, which reflected a greater negative attitude towards reading in general, when compared to the experimental group. The control group had 11 students who decreased their post-test survey scores while the experimental group only had 10 students decrease their post-test survey scores.

Each of the groups of students can be further divided by grade level and by group participation (experimental vs. control) to further analyze the collected data using the data from Table 4. Both the Kindergarten control group (n=4) and 1st grade control group (n=4) of students scored the same ratio of decreased, increased, or no change in their post-test survey scores. These groups of students had 3 students decrease their scores and 1 student displayed no change between his scores. Likewise, the Kindergarten experimental group (n=3) and 1st grade experimental group (n=3) of students scored the same ratios of post-test survey scores: 2 students decreased and 1 student displayed an increase. The only students that showed an increase in reading attitude survey scores within Kindergarten and 1st grade participated in the experimental groups (n=2). Within the 2nd grade population of students, the 2 students that showed an

Table 4: Reading Attitude Survey Scores (Pre-Test and Post-Test) and Content-Area Knowledge Post-Test Score

Grade and Group	#	Reading Survey Total Scores		Post-test Content Scores
		Pre-	Post-	
K Control	1.	80	69	80
	2.	57	43	90
	3.	73	67	80
	4.	80	80	80
K Experimental	5.	61	58	70
	6.	58	54	60
	7.	31	36	70
1st Control	8.	40	32	40
	9.	80	80	50
	10.	68	43	80
	11.	68	60	50
1st Experimental	12.	47	37	80
	13.	73	62	40
	14.	52	66	60
2nd Control	15.	65	57	90
	16.	78	67	100
	17.	77	57	90
2nd Experimental	18.	70	75	100
	19.	63	80	100
	20.	76	76	100
	21.	47	42	80
3rd Control	22.	55	74	50
	23.	73	73	100
3rd Experimental	24.	72	68	60
	25.	56	53	60
	26.	38	34	30
4th Control	27.	61	54	60
	28.	43	51	100
	29.	48	22	60
4th Experimental	30.	47	30	40
	31.	68	61	80
	32.	46	48	50
Mean		61	57	71
Standard Deviation		14	16	21

Table 4: A table organizing students' reading attitude survey scores (pre-test and post-test) and students' content-area knowledge post-test scores based on grade level, group membership, and numbered individual students.

increase in reading attitude survey scores participated in the experimental groups. All of the 2nd grade control group students decreased in their post-test survey scores. The 3rd grade control group had 1 student who increased his post-test survey score while the other control group student had no change in her score. All of the 3rd grade experimental group students (n=3) decreased in their post-test survey scores. Both 4th grade groups of students (experimental n=3; control n=3) had the same ratio of post-test reading attitude survey scores: 2 students decreased and 1 student increased.

When the data from the pre-test and post-test reading attitude survey scores are compared to students' post-test content-area scores, there are a few trends that are recognized. There were 8 students (experimental n=4; control n=4) that received a below average (50% or lower) post-test content-area score on their social studies assessment. Out of these 8 students, half of them (n=4) also received below average (50% or lower) score on their pre-test and post-test reading attitude survey scores. The other half of these 8 students (n=4) received average scores (51%-60%) or higher (61%-80%) on their reading attitude surveys.

Table 5 and Table 6 display the results of the individual reading attitude survey questions. This data assesses how favorably or unfavorably the students' attitudes were towards reading. The 4 point Likert scale was labeled as follows: 1 (very upset), 2 (a little upset), 3 (a little happy), and 4 (very happy). The tables (5 and 6) also show the corresponding amount of students who marked each question with a 1 or 2 out of a 4 point Likert scale. A question that is marked with an "x" displays the student's score of 1 or 2 out of 4, which reflected that the student had a more negative attitude towards particular reading attitude questions. If a question was not tallied with an "x" in the charts (Table 5 and 6), then the student had a more favorable attitude towards reading for that particular question; thus, selecting a 3 or 4 for that question.

The data below only displays unfavorable marks ("x" for 1 or 2 out of 4) made by students within each of the grade level groups.

Table 5: Individual Reading Attitude Survey Questions with Below Average Scoring: Pre-test Results

Survey Question	KC n=4	KE n=3	1C n=4	1E n=3	2C n=3	2E n=4	3C n=2	3E n=3	4C n=3	4E n=3
1		x						xx		
2		x	x	x		x	x			x
3	xx	xx		xx		xx	x	xx	xx	x
4		xx		x		xx			xx	xx
5		x	x	x		x	x	x	xxx	xx
6	x					x			x	
7	x	xxx	xx	xx	x	x		x	xx	xx
8		xx	xx	xx		xx	x	xx	xxx	xx
9		x	x						xx	
10				x			x			x
11		x	x	xx		x		x	xx	x
12	x	xx	x	xx		x		xx		x
13		x	x		x		x	x	x	
14		xx	x			x		x	x	x
15		x	x	xx	x	x	x	x	x	x
16		x	x	x		x		x	x	xx
17		x	x					x	x	
18	x	xx	x	x	x	x		x	x	x
19	xx	xx	x			x		x	xxx	xx
20	x	x	x	xx				xx	xx	xxx

x = Question marked as 1 or 2 by a student in the group

Grade Level/Group Key:
KC – Kindergarten control group
KE – Kindergarten experimental group
1C – 1st grade control group
1E – 1st grade experimental group
2C – 2nd grade control group
2E – 2nd grade experimental group
3C – 3rd grade control group
3E – 3rd grade experimental group
4C – 4th grade control group
4E – 4th grade experimental group

Table 5: A chart displaying the individual reading attitude survey questions marked as a 1 or 2 out of a 4 point scale by a student within each group on the pre-test survey. Each "x" represents one student's response, which translate as a more negative attitude towards reading for that particular question.

Table 6: Individual Reading Attitude Survey Questions with Below Average Scoring: Post-test Results

Survey Question	KC n=4	KE n=3	1C n=4	1E n=3	2C n=3	2E n=4	3C n=2	3E n=3	4C n=3	4E n=3
1	x	x	xx	x				xx	xxx	x
2		xx	x	x		x		xx	xx	xx
3	x		x	xx		x		xx	xxx	xx
4	x	x				x		x	x	xxx
5	x	x	xx	x	xx	x		xx	xx	xx
6		x	xx	xx					x	xx
7	x	xx	xx	x	xx	x		x	xxx	x
8	x	x	xx	x	xx	xxx		xx	xxx	xxx
9		x	x	x		x			x	xx
10		x	xx							x
11	x	xx	xx	x	xxx	x		xx	xx	xxx
12	x	x	x		xxx	x		xx	xx	xx
13		x	x	x					x	xx
14		xx	xx	x				x	xx	x
15	x	x	x	x				x	x	x
16		xx	xx	x	xx	x		x	xx	
17	x	xx	x	x				x	x	x
18	xxx	xx	xx	xxx		x		x	xx	x
19	xx	x		x	xxx	x		xx	xxx	xxx
20	x	xx	xx	xxx	xx	x		xx	x	xx

x = Question marked as 1 or 2 by a student in the group

Grade Level/Group Key:
KC – Kindergarten control group
KE – Kindergarten experimental group
1C – 1st grade control group
1E – 1st grade experimental group
2C – 2nd grade control group
2E – 2nd grade experimental group
3C – 3rd grade control group
3E – 3rd grade experimental group
4C – 4th grade control group
4E – 4th grade experimental group

Table 6: A chart displaying the individual reading attitude survey questions marked as a 1 or 2 out of a 4 point scale by a student within each group on the post-test. Each "x" represents one student's response, which translate as a more negative attitude towards reading for that particular question.

In summary of the Table 5 and 6 data, the students who marked questions as a 1 or 2 on the reading attitude survey (displaying a "below average" or negative attitude towards reading) within the Kindergarten experimental, 1st grade experimental, 3rd grade experimental, 4th grade control, and 4th grade experimental groups showed the lowest attitudes towards reading as a group within each grade level on the pre-test survey, as reflected in Table 5. The groups that scored the lowest (1 or 2) based on the individual questions included the 3rd grade experimental, 4th grade control, and 4th grade experimental groups. They too showed the most negative

attitudes towards reading as individual groups within each grade level on the pre-test survey, as reflected in Table 5. These lower scores reflect how the upper elementary grade levels (3rd and 4th grade) have exhibited a more negative attitude towards reading in general. The groups of students that marked the questions as 1 or 2 the least amount of time include the Kindergarten control, 1st grade control, 2nd grade control, 2nd grade experimental, and 3rd grade control. These groups of students scored higher or have more positive attitudes towards reading in general. Out of the groups mentioned above (K, 1st, 2nd, and 3rd grade), 4 of the 5 are control groups, which showed that the control groups as having a better or more positive attitude towards reading. Therefore, the results from the pre-test and post-test surveys show that the experimental groups had a more negative attitude towards reading when compared to the control groups, as a whole. There were 4 out of the 5 control groups that had a higher or positive attitude towards reading, in which the students from these groups marked individual survey questions with a 3 or 4 out of 4 (reflects that the student has a more positive attitude towards particular reading activities or situations). There was only 1 experimental group of student (2nd grade experimental group) that had a higher or positive attitude towards reading; the other 4 experimental groups of students had a least one question on the survey that was marked as a 1 or 2 for the majority of students within the grade level group for both the pre-test and post-test. A majority (over 50% of the grade level group population, either 66.6% or 75% depending upon the group population of 3 or 4 per group) of the experimental grade level group marked an individual question with a 1 or 2 on both the pre-test and post-test survey, which showed that the particular question or reading situation was highly unfavorable (negative attitude towards that question for most of the experimental groups; K, 1st, 3rd, and 4th grade).

As a whole, the reading attitude survey results did not display statistically significant data that supported the study hypothesis. However, when the reading attitude data is viewed in

correlation with the post-test assessment data, from the social studies content-area knowledge test after the 9 social studies lessons were taught, a trend becomes evident. After reconfiguring the data, the population of students was divided according to the results from the content-area post-test scores in order to display this trend, as shown in Figure 13.

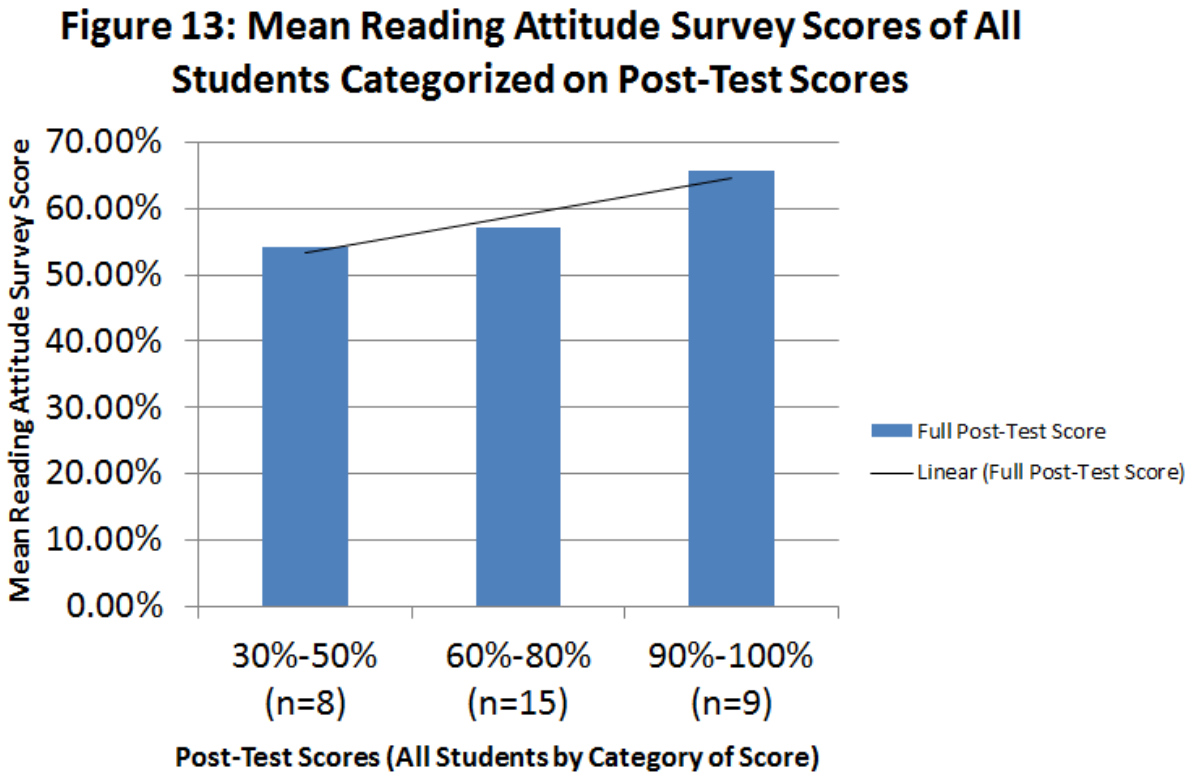

Figure 13: A bar graph with a linear trend line displaying the mean reading attitude survey scores of all students while categorizing them into content-area post-test groups based on correct percentages.

Based on the results displayed in Figure 13, the following results were concluded: The students who received the highest scores (90%-100% correct) on the social studies content-area post-tests also received the highest scores as a group on the reading attitude surveys (65.6% of the total pre-test and post-test surveys). Furthermore, the group of students who received an intermediate score (60%-80% correct) on the content-area post-tests also received an intermediate score as a group on the reading attitude surveys (57.1% of the total pre-test and post-test surveys). Lastly, the group of students who received the lowest scores (30%-50%

correct) on the content-area post-tests also received the lowest scores as a group on the reading attitude surveys (54.2% of the total pre-test and post-test surveys).

SCA Educator Data – Survey & Group Discussion. The educators were surveyed during the pre-test timeframe before the 9 social studies lessons were taught. After a review of the completed teacher and teacher aide (n=5, 3 teachers and 2 teacher aides) forms, the responses showed that they were generally in favor of integrating literacy skills and strategies into content-area teaching besides language arts. However, these strategies were limited to instruction on phonics, vocabulary, and reading fluency, as well as, free time for students to read books independently outside of the standard curriculum. For example, one classroom teacher noted that she "will display books that have [content-area theme] information… [they] are available for students to look/read through during Activity Times. Once a student understands and can practice basic phonics rules, meanings, and order, they can apply those skills in furthering their knowledge in other subject areas." The educators also perceived that the lower elementary grades were primarily where literacy strategies should be taught and emphasized (grades K-2nd): "In early elementary school, students will need great support in learning to apply literacy strategies… [however] As students move into higher grades, these strategies… should no longer need to be taught."

Generally, they were satisfied with the amount of time they dedicated per week to the instruction of literacy strategies into content-area instruction outside of language arts instruction. Two out of the five educators said that they were not satisfied with the amount of time they dedicate towards reading fluency. One of the teacher aides said that she was not satisfied with the amount of time she spent during her instructional time on comprehension and writing, along with fluency. The pre-test "Teacher Survey" question #2 stated the following: "Do you think that teaching literacy strategies to student during content-area of other subjects besides reading

and writing (language arts) time is beneficial? Why or why not?" All five of the educators agreed that literacy strategies could be used and taught during other content-area instructional times for a number of reasons. The 1st-3rd grade teacher stated that "being able to understand what one has read (in any subject) is vital to a child's success in life." Similarly, the Kindergarten teacher aide said, "the more they get [reading instruction], the better off they will be." Both of these statements emphasized the concern for students' overall instruction and understanding of life-skills, such as reading and writing. The Kindergarten classroom teacher stated that "I do believe that teaching literacy strategies to students during content-area of other subjects is beneficial because they need to be able to break down words, thoughts, ideas, to understand the general 'idea' or 'theme' of the subject then they will have a better concept of the subject material." The 1st-4th grade teacher aide, likewise, emphasized her goal in saying that "it [literacy strategies] could aid in their overall understanding." The 4th and 5th grade teacher mentioned that "being able to read, write, and comprehend are essential to learning in every area. Therefore, being able to apply literacy strategies in all situations is beneficial and necessary." Based on their concise answers, all of the educators recognized the need and benefit of incorporating literacy into all content-areas.

The educators also perceived that they are already integrating literacy strategies into other content-areas, via their answers to pre-test "Teacher Survey" question #3. The question asked the following: "In what ways do you incorporate literacy into other content-areas? If you are able, give an example." The Kindergarten and 1st-3rd grade classroom teachers (n=2) and the 1st-5th teacher aide mentioned how they incorporated other literacy materials in their instruction when covering content-area lessons. The classroom teachers mentioned that their *A Beka Book* curriculum (K-2nd grade) was organized based on themes, which enabled all of the content-areas to encompass a centered theme. The teachers supported their students' learning by providing

additional reading materials, such as books, but they do not provide additional visual literacies or instructional materials. The teacher aide emphasized the use of visual literacies and different textual resources, such as charts, maps, historical documents, books, and magazines to provide her students with various learning opportunities.

The educators recognized the importance of literacy and how it affects multiple aspects of students' lives, both in and out of the classroom. When answering the pre-test "Teacher Survey" question #4, the Kindergarten teacher and 1st-5th grade teacher aid agreed that understanding the text is one of the key elements to being a good reader: "Reading, understanding text, and sharing it is the most vital part of learning;" "[Literacy skills] enables them to think and understand beyond the written text of the 'book'…they can apply those skills in furthering their knowledge in other subjects." The 1st-3rd grade teacher stated that "reading is foundational to all learning; therefore, it is a critical component in all content-area lessons." The 4th and 5th grade teacher commented about the timeframe in which literacy strategies should be taught to students. As mentioned before, she said that "in early elementary school, students will need great support in learning to apply literacy strategies to other content-areas. As students move into higher grades, these strategies may need to be reviewed but should no longer need to be taught." Thus, she believed literacy strategies should be taught to lower elementary grade students (PreK-3rd grade); and, once they arrived at the upper elementary grade levels (4th-5th grade), they should have a well-established understanding, knowledge of application, and integration of literacy strategies and skills.

In the pre-test "Teacher Survey," questions #5 through #10 incorporate Likert scale questions measured by frequency (always, often, sometimes, rarely, or never). The following was an overview of all educators' responses to the questions (most of the questions had a consensus on responses): Three out of the five educators believed that literacy should "always"

be incorporated into a part of every lesson, no matter the content-area. Three out of the five educators "often" incorporated multiple types of literacy and textual resources when teaching content-area instruction. Two out of the five educators "often" reviewed the content of texts, while another two out of the five educators "sometimes" reviewed the content of texts. Three out of the five educators sometimes incorporated activities and exercises that strengthen academic language to engage students' higher levels of thinking. Three out of the five educators believed that literacy strategies should be taught "often" during content-area lessons. Three out of the five educators "sometimes" immediately reviewed and taught students literacy strategies during content-area lessons. The data collected from questions #5 through #10 displayed how the educators were mostly in favor of literacy integration into content-area learning, but they did not always follow through with the actual integration.

In the post-test group discussion, the educators (n=5) were invited to join me to review literacy strategies used during the research project (9 social studies content-area lessons) and to review the raw data obtained from the student participation. Through the use of handouts and a 15 minute in-service PowerPoint formatted lecture, teachers were encouraged to ask questions and comment on the use of content-area literacy in their classrooms.

The two teacher aides, who were parents of participating research study students, voiced their concerns for their own children's literacy skills and abilities and those of whom they taught at SCA. The following was a brief dialog between group participants concerning one of the educator's children:

> Mrs. H.: "I know the classroom teachers are doing their best to help [child's name], but she still needs help at home and I just can't seem to interest her in books to read."
>
> Miss K.: "Have you tried encouraging her to read books that interest her, like horses? I know she bought a horse book at the Book Fair."

Mrs. H.: "Yes, I've bought her lots of horse and farm animal books, but she just would rather do something else."

I was able to share and explain some of the strategies used during the study to help aid the students' future progress in reading.

Miss Lee: "Reading to [child's name] will help her improve upon her literacy skills. You could read a book to her, of her choosing, for about 20 minutes a day. This would be beneficial to her as she watches you model good reading techniques and skills, and it will also get her more interested in the books that peak her interest."

Mrs. H.: "Yea, I think that's a great idea, but I just don't always have the time. I think I just need to make her read by herself for like 10 to 20 minutes each day."

I read through some of the listed reading strategies (on the handout provided to encourage her to reference in the future) that could provide learning opportunities.

The other educators also voiced their concerns about incorporating literacy skills and strategies into other content areas. One teacher mentioned how she was frustrated that time was a limiting factor which hinders the amount of time she would like to spend on teaching reading and writing strategies. The other teachers agreed that hindrances, such as time restraints, school scheduling changes (limiting instruction periods for certain content-areas), or not knowing how to best instruct and guide students' learning of content-area literacy strategies has caused them to not always follow through with the actual implementation.

Miss S.: "Yea, this all sounds great and I understand how literacy strategies are important to know and apply in all content-areas, but I just don't have the time to review and practice them when I have other things to cover in my lessons."

Miss Lee: "Well, you don't need to implement all of these strategies in one lesson. Just pick one or two that you think would work best during your lesson. Or, you could even just focus on one or two throughout the day by integrating it into each content-area."

Miss S.: "Yea, but, I mean, how would I do that?"

Miss Lee: "Well, for example, if you wanted to use a KWL chart during math, you could ask students the questions of 'What do you already know about making bar graphs? What do you want to know about bar graphs?' And, then once you've completed your lesson, see if they can add anything to the 'What have you learned?' section of the chart. You can easily apply the KWL chart to reading a book, reviewing a Bible story, or while learning science or social studies related lesson."

Miss S.: "It just sounds so easy, but I don't know when I'll have the time to do it. I guess I could try it and see if it helps."

The other teacher, who participated in the group discussion, shared how she would like to implement some of the literacy strategies, as discussed during the group time; however, she also stated the following:

Miss K.: "I am still trying to grasp the idea of integrating literacy into all content-areas, besides reading and language arts classes."

Miss Lee: "Well, what is one way you think it may not work in your classroom?"

Miss K.: "Well, I just don't see how something like looking a picture in the book is a beneficial reading strategy for my kids to use. I think that they use the pictures too much, like they use it as a crutch so that they don't have to read the text."

Miss Lee: "So, you mean your students just look at the pictures and guess what the text is saying?"

Miss K.: "Yes, some of them rely too much on looking at the pictures to guess what the story is about; that's why I don't have them look at the pictures before reading."

Miss Lee: "That makes sense in a way, but some students can really benefit from doing a picture-walk-though before reading a story. You could introduce them to the concept and have them make predictions about what the story will be about. And, then read through the text together or individually and have them see if their predictions were correct. If so, great! If not, then they can show you where the text said something different or that conflicted with their previous prediction based on the pictures."

After a few more minutes of discussion, the teachers had to leave for another school related event. Towards the end of the discussion time, the educators shared the following:

Mrs. W.: "This is great! It really is helpful to know what I can do to help my kids learn better. I can tell that there are just so many other things I can try with them to help further their learning."

Miss K.: "Yea, there are a lot of strategies I could try using, but I know I won't get to all of them."

Miss Lee: "I agree; there are a lot of strategies you could use, and depending on the learning styles of your students, some of them will benefit from different strategies more than others. You'll just have to try them out and see where you get the best response from your students" (referencing the teacher handout with literacy strategies).

Miss S.: "I don't think all of these would apply to my students [due to upper elementary grade level]; but, I do have a few students in my mind that would benefit from some of these [literacy strategies]. I just hope I can find the time to teach some of them."

Overall, I believe that the group discussion and instructional period was highly productive and the attitudes of the educators regarding literacy strategy incorporation into content-area

knowledge instruction appeared to be heightened and overall favorable during the one hour group session. This group time acted as both a professional development session and an open-discussion session. The time dedicated for this group gathering gave the educators ability to freely discuss content-area literacy while also providing professional feedback amongst the educators present. Some teachers seemed willing to try some of the literacy strategies that were used in the intervention, while others seemed reticent to try them. Others showed interest, but they commented on the need for more information about the strategies.

Discussion

SCA Student Data – Content-Area Knowledge. After teaching all participating students, both groups (control and experimental) showed expected improvement in learning; but, in comparing the two groups, the experimental group did not make significantly more improvement than the control group. Also, due to the small number of participating students, the statistics cannot be considered reliable in making comparisons between groups of students. The experimental groups within Kindergarten through 4th grade groups of students did not have a superior improvement that statistically supports the research hypothesis. The Kindergarten control group of students reached 5% increase in content-area knowledge, whereas the experimental group of students reached a 10% increase in content-area knowledge. The 1st grade control group of students reached 10% increase, while the experimental group increased their content-area knowledge by 20%. Both experimental groups of students showed a trend to a larger increase in content-area knowledge due to the incorporation of literacy strategies and exercise of literacy skills during the social studies instruction; but, the data did not reach a level of significance.

The 3rd grade control group of students made a dramatic change in their content-area knowledge, in which they increased their content-area knowledge by 70% and the experimental group increased by 27% from pre-testing to post-testing. Both of these 3rd grade groups made substantial content-area gains; but, the control group made a 43% greater gain when compared to the experimental group. This can be surmised to be a result of the small number of students in the 3rd grade group (control n=2; experimental n=3). Also, one of the two students in the 3rd grade control group made a 100% improvement on the content-area post-test compared to his pre-test score, which dramatically affects the overall data of this group (n=2).

All groups made considerable academic gains in content-area knowledge of social studies in their post-test results compared to their pre-test results. All groups were able to incorporate new knowledge taught in social studies. Also, the internal control questions of the tests (Questions #4 and #7) demonstrate post-test knowledge at the pre-test knowledge of approximately 40%. This proves the support of the non-target questions acting as internal quality control for the validity of the testing data.

The students, as a whole, made greater gains in the short-answer sections of the social studies content-area knowledge test (post-test), in which students were able to incorporate more academic vocabulary and increase their overall use of words in the three short answer questions. When comparing the overall use of words to complete the three short-answer questions, the mean of all the experimental groups (n=16) was slightly higher than the mean of all the control groups (n=16). This would demonstrate slightly improved use of vocabulary words (academic language) to answer the content-area knowledge questions in the experimental group as a whole.

My findings align with other educational research studies have concluded and discussed that the integration of literacy into content-area instruction proves to be beneficial to students of all grade levels, especially those within elementary school (Dieker and Little, 2005; Lacina and Watson, 2008; Ming, 2012; Roskos, Christie, & Richgels, 2003; Shanahan and Shanahan, 2008). Different literacy strategies taught at the elementary grade levels have helped students improve academically as they move into middle school and high school. The importance of these literacy skills should be highlighted and emphasized at an early age for all students so that they can continue to build upon these skills as they move on in their educational pursuits. By encouraging students to use literacy strategies effectively and by modeling appropriate usage throughout their academic careers, students are then able to continue using and practicing literacy skills and strategies in a variety of contexts, including different content-areas. As shown in the current

study being discussed, the use of additional educational materials, such as pictures, texts, charts, and maps, allowed students to interconnect the information presented with literacy strategies, which helped them interpret their meaning and further their learning.

SCA Student Data – Reading Attitude Survey. Although the overall student reading attitude post-test survey score (57%) was lower than the reading attitude pre-test survey score (61%), this may be due to student fatigue with excessive test-taking on the post-test date. Yet, it should be noted that the group as a whole (n=32) has a favorable attitude toward reading at approximately 60% of the time they would favor in school and out of school reading activities to other activity choices. However, when you separate students' answers from both the pre-test and post-test reading attitude surveys, the experimental group had a greater number of students increase their survey scores from the pre-test to the post-test, which infers that they, as a whole group, experienced opportunities and situations that caused them to reflect on reading with a positive attitude during the social studies lesson instructional periods. The control group had a greater number of students decrease their survey scores from the pre-test to the post-test, which also infers that they, as a whole group, did not experience opportunities or situations that caused them to display a better attitude towards reading; they decreased their scores, thus displaying an increase in negativity towards reading.

When viewing the individual questions on the reading attitude survey, there were some questions that many students marked as a 1 or 2 to display their negative attitudes towards reading. On the pre-test, 50% of all the students (n=32) marked question #8 with a 1 or 2: "Q8: How do you feel about reading instead of playing?" Based on the results of this question, students would rather play instead of read, in which the assessment assumes that reading is not an activity that is considered "play." On the post-test, 50% or more students (n=32) marked questions #8, #11, #19, and #20 with a 1 or 2: "Q8: How do you feel about reading instead of

playing? Q11: How do you feel when a teacher asks you questions about what you read? Q19: How do you feel about using a dictionary? Q20: How do you feel about taking a reading test?" The questions that received the lowest scores on the pre-test and post-test surveys reflected how students felt when reading was generally compared to another activity, if they felt that their knowledge or understanding of reading was being tested, or if they had never interacted with something related to reading (such as a dictionary). Furthermore, the students reading attitude surveys were also divided by each grade level and group.

The results from the students' reading attitude surveys displayed how there were groups of students that had a greater positive attitude towards reading compared to other groups. The 3rd grade experimental group and both of the 4th grade groups (control and experimental groups) scored the lowest on the surveys, which displays how they had the most negative attitudes towards reading (based on the pre-test and post-test surveys). This supports the idea that upper elementary students (3rd and 4th graders) may dislike reading more than lower elementary students (K-2nd grade). Students in the upper elementary grades have already received basic instruction on literacy skills, and therefore, are expected to display these skills and literacy knowledge with a greater degree of understanding and implementation. This may be challenging to some 3rd and 4th graders who feel unable or underprepared to display these skills, especially when others, including teachers and students, could be watching or assessing them, such as during written test taking or answering questions aloud about a text.

In conjunction with the inference above about upper vs. lower elementary students, the data displayed by Kindergarten, 1st, and 2nd grade students also support this idea. When viewing the data given by the K-2nd grade group of students, there are some results that support the idea that these students have a greater or more positive attitude towards reading. The Kindergarten control group, 1st grade control group, both 2nd grade groups (control and experimental), and the

3rd grade control group scored the highest on the reading attitude surveys, which displays how they had the most positive attitudes towards reading (based on the pre-test and post-test surveys). This data supports the idea that lower elementary students (K-2nd graders) have a greater attitude towards reading because it is greatly emphasized in their curriculum and they are being taught the basics of literacy skills and strategies. These students are learning and practicing the required literacy skills and concepts they need to know for their future academics.

Based on the scheduling of instructional times and days, this drop in students' perceived desire to read may be a result of the particular day that the post-test reading attitude survey was given to students. Unbeknownst to me at the initial time of scheduling instructional periods, all the experimental and control groups had spent four hours completing their yearly standardized achievement tests the same morning that the post-testing assessments and surveys were given. Students may have been overwhelmed with test-taking that day, which was verbalized by both students and teachers before they began the post-test reading attitude survey; thus giving evidence to explain the drop in reading attitude survey scores on their post-tests.

A result not hypothesized was the interplay between the reading attitude survey by the student and the academic gains in content-area knowledge. It appears that there is a trend in this student population that correlates low performance on social studies content-area post-test scores with low reading attitude survey scores. Likewise, students with a higher performance on social studies content-area post-tests had the highest reading attitude survey scores.

Other educational research has shown that students' practices of literacy strategies within content-area instruction has effected and altered their attitudes and perceptions of literacy (Connor et al., 2010; Ertmer and Newby, 2013; Harmon, Wood, and Stover, 2012; Moje, 1996; Senn, 2012). Students' behavior and attitude towards literacy strategies change once they have understood and practices appropriate implementation. Students' attitudes and perceptions of

literacy and content-area learning can be altered based on the academic responsibility given to students and how well educators are able to guide students when selecting additional resources and materials for each lesson. Negative attitudes may arise due to academic pressure and other educational demands, which will cause students to resent literacy instruction. Also, when educators show a genuine interest and enthusiasm with the incorporation of literacy strategies, students will develop a greater interest and better attitude towards content-area literacy. The research presented in the current study supported these aspects of prior research on students' attitudes and perceptions on content-area literacy.

In summary of the student data, when evaluating change in scores from pre-test to post-test content-area knowledge and usage of total words incorporated to answer the short answer questions, there appear to be trends of enhanced scores in some of the experimental groups. The scores of the experimental groups vs. control groups in Kindergarten and 1st grade (content-area test scores) show a trend to higher scores. Also, total words used in the short answer questions across the K-4th grades (experimental vs. control group, all grades) show a trend of superior, but slight, improvement in the experimental group. The lack of statistical significance is reflective of the small sample size. These trends suggest that in your context, the content-area literacy instruction seemed to indicate an increased ability to more fully answer short-answer questions on the topic.

SCA Educator Data – Survey & Group Discussion. By summarizing the qualitative educator responses to the surveys, the data shows that teachers are generally satisfied with the amount of literacy strategy instruction they provide to their students in areas of specific content-area knowledge learning outside of language arts. They, as a group, had a limited understanding of the vast array of strategies available displayed by their limited explanations on the surveys and the multiple questions they had for me. They all believed that literacy strategies should be taught

to the lower elementary grades (grades K-2nd), but teaching literacy strategies had little importance beyond those grades. However, during the post-test summative group discussion, I had time to provide feedback to the educators with the use of a PowerPoint presentation and handouts to briefly describe the types of literacy strategies that were used during this research project. The teachers and teacher aides voiced their opinions of literacy strategies and how they agreed that literacy skills could be beneficial if integrated into other content-areas besides reading and language arts. They had a favorable impression of content-area literacy integration at various elementary grade levels, which aligned with prior research (Fang, Sun., Chiu, & Trutschel, 2014; Hill, 2014; Moss, 2005; Wilson, 2011). The integration of literacy into content-area instruction cased the teachers to reevaluate their instructional methods and brainstorm ways to further their students' knowledge of content-area materials, as well as literacy instruction. They began to think of creative opportunities for students to incorporate these skills, which would then encourage the educators as they witness students' increase in academic content-area knowledge via observation and assessments.

While I presented an overview of the research data collected from the students, the teachers were very interested while visualizing the correlation between students' reading attitudes and their academic performance on the social studies content-area assessments. They agreed that students' attitudes towards any school related activity or subject greatly affects their academic careers. The two teacher aides are also parents to some of the participating students. They voiced their concerns for their own children and the other SCA students and questioned how literacy could be taught in various situations, both at home and in the classroom. Specific examples and techniques were reviewed with the educators, which also aligned with prior research (Fang, Sun, Chiu, & Trutschel, 2014; Jewett, 2013; Mitton-Kukner and Orr, 2014; Sewell, 2013). The educators voiced their willingness to further their knowledge on literacy

content-area instruction and strategies so that they could further their students' learning, which will have a positive effect on their attitudes towards content-area literacy. By building their awareness and knowledge of content-area literacy, these educators will have a better understanding on how to incorporate them into their classrooms. After this, all educators agreed that students' learn differently and progress differently when learning; however, it is critical that students are encouraged and challenged in their literacy skills in order to be well prepared for middle school, high school, and further educational pursuits. The educators could better understand the roles they play by the end of the group time. I also volunteered to provide additional literature and suggestions at future timeframes, and the educators were encouraged to contact me as their needs may arise.

Implications & Applications

The research trend that connects content-area performance to general literacy skill suggests that intensive reading instruction more generally may improve both the attitudes and academic performance of those students who had lower attitude scores correlated to poor academic achievement. Specific instruction in content-area literacy, as a part of a broader intervention in reading more generally, would benefit these students. A study conducted by Hall (2012) a study on students' reading identities concluded that students who view themselves as high-performance readers are able to discuss texts and literacy strategies in a different way compared to students who viewed themselves as average or low-performance readers. Hall (2012) also discussed the difference in how students select and use different reading comprehension strategies to help them understand different types of text. Students who perform poorly at the academic level have also displayed poor attitudes towards reading, which was a similar trend found within the data collected from the current study; but, there was no statistically significant data to support conclusive results. The conclusions made by Hall (2012) support the use of content-area learning and it can be extrapolated towards the education of those low academic performing students at SCA by giving them the necessary literacy tool sets to succeed at enhancing their academic performance.

Also, the attitudes and perceptions elementary students have regarding their reading attitudes could be addressed at SCA, in which the educators could provide more opportunities for students to interact with a variety of literacy texts and resources to increase their motivation to read. The students, who participated in this research study, displayed an average attitude towards reading during the pre-test reading attitude survey; however, this attitude towards reading decreased overall within the population of students during the post-test reading attitude survey compared to the pre-test survey. Although, there can be no conclusive connections to

link students' attitudes towards reading with the integrated literacy instruction; nonetheless, students at SCA may benefit from integration of further research models and instructional methods due to the decrease in positive attitude towards literacy instruction after they had received the instruction. This would suggest that the students found the instruction to be unhelpful or not engaging; thus requiring the option of integrating further research-based methods of instruction.

Suggestions from research may provide ideas or ways in which SCA educators can make their instruction more helpful and engaging. In this regard, Flood and Lapp (1994) and Calo (2011) discuss some ways in which educators can help students develop literacy appreciation and their literacy skills in order to be academically successful in the classroom. Based on further research from Connor et al. (2010; 2012) and Jewett (2013), the authors concluded that students benefit from the integration of literacy into content-areas because it allows them to draw upon their literacy skills and adapt to various learning contexts and experiences; and, it may also cause educators to rethink the way they view literacy and how it could be taught in the classroom.

As evidenced in the research literature, students can also be affected by their teacher's attitude towards content-area literacy. There was a range of attitudes that were communicated by the SCA educators in the pre-test and post-test teacher survey and group discussion that also aligned with the previous research (Fang, Sun, Chiu, & Trutschel, 2014). As mentioned in the results of the SCA educators' group discussion, many teachers agreed that literacy can and should be integrated into various content-areas; however, they were hesitant to begin the implementation process in their own classrooms. Their willingness or non-willingness to try something new, such as different content-area literacy strategies, will be reflected in their daily instruction and teaching methods based on the findings by Dierker & Little (2005). However, it

limits the possibilities of increased student learning when these strategies are not even attempted or experimented with in the classroom.

On the other hand, if an educator is enthusiastic towards the integration of content-area literacy, then students can be empowered to incorporate literacy skills into their academic learning. The SCA educators also voiced their interest in the various literacy strategies that could be used within their classrooms. All of the strategies and point of views were discussed, and the educators shared how they have had to differentiate their instruction to meet the learning needs of certain students by integrating more instruction on literacy skills. The study conducted by Sewell (2013) and Ulusoy and Dedeoglu (2011) discussed the impact a teacher can have on students' learning with regards to how he or she views and implements literacy strategies in the classroom across content-areas. A teacher's willingness to learn new techniques and the time management skills necessary to institute these techniques for benefit of the students shows that the teacher is capable and vested in the future of his or her students. With further education, the teachers at SCA would be able to expand their instructional techniques and methodology.

Additional education and training, such as online college courses, educational webinars, teacher workshops and conferences, and reading up on the most current research-based strategies, would allow the SCA educators to investigate and experiment with other literacy strategies that would help their students in a variety of content-areas. These concrete and practical ways to further their own learning and instructional methods will encourage the SCA teachers and teacher aides to educate themselves about the teaching of content-area literacy. Studies by Sewell (2013), Mitton-Kukner and Orr (2014), Fang, Sun, Chiu, and Trutschel (2014), and Ulusoy and Dedeoglu (2011) generally noted in their studies that teachers must continue to educate themselves on various literacy strategies that could be implemented in their classrooms, so that they can be better prepared to help guide and instruct their students.

Teachers at SCA should be encouraged to incorporate other materials and resources into their lessons as multiliteracies and reading tools to provide additional and various learning opportunities for their students. This will engage students in participating in activities and exercises that allow them to make connections to what they are reading in the texts, as mentioned in prior research. For example, the use of visual and auditory tools, such as maps, illustrations, artwork, photographs of artifacts, documents, music, instruments, sounds, and video clips, would reinforce the educational experience for students who are better visual, auditory, and musical learners. Some of the teachers had mentioned how they try to incorporate additional multiliteracies, such as illustrations, documents, and auditory tools; however, they also mentioned the need to incorporate more tools and resources to make their instruction more interactive for students. The incorporation of reader's theater and purposeful movement would help kinesthetic learners as they actively participate in performing key concepts and ideas from their lessons.

Research suggests the use of literacy strategies that can encompass a wide variety of content-areas (Dieker & Little, 2005; Flood & Lapp, 1994; Hill, 2014). The following list of literacy strategies were provided by further educational research, and some were being used in the SCA classrooms: literature circles, applying paraphrasing strategies, applying assistive technology, peer tutoring, predicting content, discussing content, read-alouds, encouraging connections to background knowledge and other stories/texts, writing responses and reflections, reading with partners, and reading to self. Some of these strategies were already being implemented by SCA teachers; however, by incorporating more strategies will diversity the students learning experience while giving them more opportunities to exercise their literacy skills. Another strategy that would be more focused on upper elementary to high school students are interdisciplinary, project-based, multimodal (IPM) activities (Hill, 2014). These activities

enable students to link ideas and information across content-areas via activities, such as debating ideas, designing and implementing solutions or plans, and communicating their findings through artifacts and other projects while cultivating a classroom environment that promotes motivation, reading, and academic progress (Hill, 2014). Those SCA teachers should begin by introducing the lesson and then provide supportive learning through IPM activities to motivate students to experiment and investigate how they can demonstrate their knowledge and understanding through various avenues or methods.

Overall, with their current curriculum, SCA would be able to provide teachers with a few additional resources and multiliteracies made available by the school and local libraries. The use of additional resources and materials, such as other texts from local libraries (with regards to various genres), maps, artifacts, pictures/images, video related visuals, audio clips, etc., could all be incorporated to broaden students' interest in content-area literacy, beyond what is already outlined in the textbooks. The inclusion of hands-on activities and research via library and computer resources would also allow students at SCA to have the opportunity to look beyond their textbook for information and insights regarding the studied topics and ideas. Based on the trends identified in the results of this current study and the conclusions from prior educational research studies, the use of content-area literacy integrated into the curriculum lesson plans would enhance educators' instructional methods and lesson differentiation, while also teaching them when, how, and why certain literacy strategies are important to use when reading various texts and practicing different writing skills. By reviewing and incorporating one strategy at a time, the teachers and teacher aides would be able to diversify students' learning experiences. The administrators and educators at SCA could reap academic improvement by incorporating literacy strategies to cultivate the literacy skills these students will use throughout their lives.

Implications for Further Research. I suggest that future research be undertaken in larger student populations over longer time frames to assess the impact on academic achievement by incorporation of literacy strategies into content-areas, such as social studies. This would provide additional data and reflection upon content-area literacy and how it can be appropriately implemented within various student populations and schools. Additionally, a long-term study would give evidence whether academic gains could be achieved over multiple school years. For example, studies could focus on finding out benefit from the opportunities presented by content-area literacy instruction while engaging in various activities that support student content-area knowledge and literacy learning. With the integration of content-area literacy instruction and multiliteracies activities, researchers could study how educators diversify their instruction to meet the learning needs of all students, while addressing different learning styles and literacy skill levels. Also, studies conducted on students in K-2nd grade may focus on more intensive literacy skill enhancements to enhance students' skill sets to meet higher academic goals.

Conclusions

In this study, the following was concluded based on the collected data and research conducted on the topic of content-area literacy integrated at the elementary level: Overall, students made academic progress when content-area literacy strategies were integrated. The students who specifically displayed a trend showing a greater benefit from the content-area literacy instruction were the Kindergarten and 1st grade experimental groups of students, when compared to the rest of the grade level groups participating in the study. It appears that content-area literacy may be especially helpful in early grades.

The remaining data pertaining to the content-area pre-test and post-test assessments were largely inconclusive due to the limited amount of time given to complete the study. The following research question was able to support the conclusions from other educators and researchers: "Will the integration of informational text reading instruction and literacy strategies during social studies content-area learning improve students' content-area knowledge (through the use of the same pre- and post-tests), and will their reading attitude change?" As outlined in the study's results, the integration of informational text reading instruction and the integration of literacy strategies proved to be beneficial to all students involved in the study. There were certain groups of students (K-1st grade students) that improved academically more than others since other groups of students (2nd-4th grade students) displayed a lesser amount of improvement. Due to extraneous factors, such as the study's timeframe and student population, some of the study's conclusions need to be further researched during future studies. Furthermore, it was hypothesized that the students within K-2nd grade would make the greatest amount of academic gains in their content-area knowledge; and, this hypothesis was supported by the study's results.

The conclusions on student' attitudes towards reading revealed that lower elementary level students, those within K-2nd grade, had a more favorable attitude towards reading, as

opposed to the 3rd-4th grade students who had a less favorable attitude towards following the intervention. The study suggests that educators within all grade levels could benefit by implementing various literacy exercises that include reading while their students participate in various activities. This may allow students, especially within the upper elementary grade levels, to experience more engaging literacy activities, which may increase their overall attitude towards literacy. The following research question was posed in order to evaluate the impact content-area literacy would have on students' attitudes towards reading in general: "Can reading attitudes of Kindergarten - 4th grade students be favorably enhanced by the use of literacy instruction?" This question was answered in which the data concluded that students' attitudes towards reading were not enhanced or altered based on the integration of literacy into their content-area learning. Based on all of the students' survey responses, there was a slight decrease in their attitude surveys when comparing their pre-test and post-test survey scores. However, when the data from both the content-area tests and the reading attitude survey tests were observed and analyzed together, the data presented in the study showed a trend in which students who had a positive attitude towards literacy (from the control and experimental groups) also performed better on the post-test when compared to their peers (across all grade levels, grades K-4th). This supported the previous research that indicates that educators may help students improve academically if they also encourage them in their literacy pursuits.

The following research question was posed to further evaluate and analyze educators' attitudes towards content-area literacy: "Can the perception of educators be improved regarding the use of content-area literacy in social studies instruction?" The research did not give sufficient data related to this question due to the range of perceptions presented by the educators at the end of the study. Not all of the educators were engaged in content-area literacy instruction. Based on the conclusions of the study, educating the educators is crucial in this

academic pursuit. The pre-test survey and post-test group discussion with the teachers and teacher aides allowed them to voice their concerns and collaboratively formulate solutions regarding the use of literacy in multiple content-areas. The educators agreed that students need to be actively engaged in their learning. They also agreed that they, as the educators, play a crucial role in each student's academic success. By giving students greater academic opportunities to widen their view of literacy and the many forms it comes in, such as multimedia and textual resources, students developed a more positive attitude of literacy, which may in turn have a positive outcome for their academic skills across all content-areas. The perceptions of the educators was slightly improved overall; and, the educators were more open to discussing and listening to how literacy could be integrated into various content-areas within their classrooms. After reviewing further research, the conclusions of this study support the conclusions of other educational studies on educators' attitudes and perceptions. The teachers and teacher aides recognized how the literacy strategies could be integrated and adapted to other content-areas, and they were interested to see how they would work in their own classrooms, which was a similar conclusion when compared to other studies.

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Appendix A& B (Student Content-Area Pre-test and Post-test)

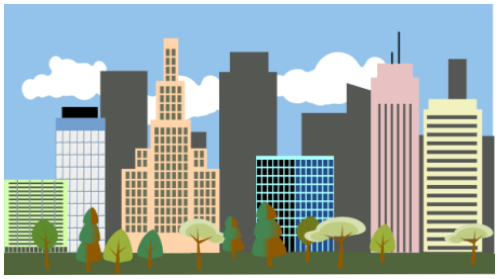
Kindergarten – What Do You Know?

(Assessment questions developed from *A Beka Book*® curriculum.)

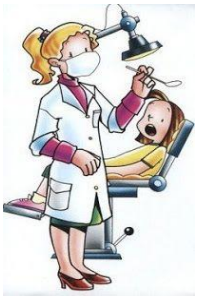
Name: _____ **Date:** _____

Multiple Choice: Write the letter of the correct answer in the blank.

_____ 1.) What type of community is your school in?



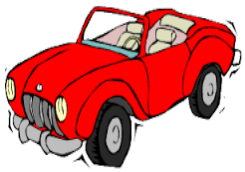
_____ 2.) Which community helper can you find at school?



_____ 3.) What does a pastor do?

_____ 4.) What does an accountant use when he works?



_____ 5.) What food would the doctor tell you **NOT** to eat a lot of?



_____ 6.) Which community helper works outside a lot?

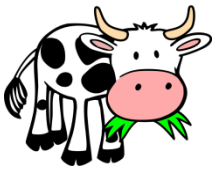



_____ 7.) Which community helper doesn't need to go to college?



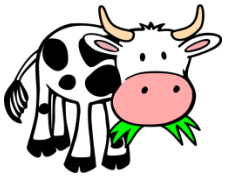

_____ 8.) A suburb has what in it?



_____ 9.) A city has what in it?



_____ 10.) The country has what in it?




_____ 11.) Who helps firefighters rescue people?




_____ 12.) Who is the community leader?




Open Response: The teacher will ask the student each question, and the student will give a verbal response. The teacher will write down the student's answer without any additional help or ques.

13.) If you were in trouble or in danger, which community helper would you call? Why would you choose him or her?

14.) What is one way you can help a pastor?

15.) What does a teacher do?

1st Grade – What Do You Know?

(Assessment questions taken from *A Beka Book*® curriculum.)

Name: _____ **Date:** _____

Multiple Choice: Write the letter of the correct answer in the blank.

_____ 1.) What is another word for small blanket with a slit cut for the head?

A. sombrero C. poncho

B. tortillas D. serapes

_____ 2.) What is the name of the largest city in Mexico?

A. Mexico City C. Columbus City

B. Guadalajara D. Puerto Vallarta

_____ 3.) Which country is found in the continent of Europe?

A. Italy C. China

B. Mexico D. India

_____ 4.) The United States bought Alaska from which country?

A. Canada C. Mexico

B. Russia D. China

_____ 5.) In Venice, there are many canals. What is a canal?

A. a stone wall C. a water way

B. a long street D. a type of boat

_____ 6.) What body of water in Israel has very salty water?

A. the Salty Lake C. the Dead Sea

B. the Israeli Sea D. the Red Sea

_____ 7.) How many countries are in Africa?

A. 27 C. 83

B. 54 D. 46

_____ 8.) What is the capital city of Israel?

A. Jerusalem C. Galilee

B. Israel City D. Bethlehem

_____ 9.) What do the Chinese use as silverware?

A. Forks and knives C. Spoons only

B. nothing D. Chopsticks

_____ 10.) Which mountain is the tallest in the world?

A. Mount Everest C. Mount Rushmore

B. Chimborazo D. Mount Kilimanjaro

_____ 11.) Which country is also its own continent?

A. China C. Europe

B. Brazil D. Australia

_____ 12.) Which Australian animal has fur, a bill, and webbed feet?

A. emu C. platypus

B. kangaroo D. koala

Open Response: Answer the question on the lines below. Use complete sentences.

13.) Describe one of the new animals we learned about from our lessons. What country is it from? What does it look like?

_____

_____

_____

_____

_____

_____

_____

_____

14.) What happens on Chinese New Year? How do Chinese people celebrate Chinese New Year?

15.) Why does Venice have a lot of canals instead of streets?

2nd Grade – What Do You Know?

(Assessment questions taken from *A Beka Book*® curriculum.)

Name: _____ **Date:** _____

Multiple Choice: Write the letter of the correct answer in the blank.

_____ 1.) How many American colonies did England rule?

A. 10 C. 13

B. 12 D. 15

_____ 2.) The person who made barrels was called the _____.

A. blacksmith C. apothecary

B. silversmith D. cooper

_____ 3.) Who made or repaired things made from silver?

A. blacksmith C. apothecary

B. silversmith D. cooper

_____ 4.) What was the name of the person who measured land using his instruments?

A. hunter C. senator

B. representative D. surveyor

_____ 5.) Who owned the colonial drugstore?

A. blacksmith C. apothecary

B. silversmith D. cooper

_____ 6.) Who made things with iron?

A. blacksmith C. apothecary

B. silversmith D. cooper

_____ 7.) The Revolutionary War lasted from _____ to _____ ?

A. 1775-1776 C. 1775-1783

B. 1775-1780 D. 1775-1789

_____ 8.) A joiner's shop is also known as a _____.

A. drugstore C. furniture store

B. jewelry store D. hardware store

_____ 9.) What did colonists in the North use the most to sweeten their food?

A. sugar C. sugar cane

B. maple syrup D. honey

_____ 10.) The special book the colonial school children used to learn to read was called _____.

A. a hornbook C. a dictionary

B. Mother Goose's Nursery Rhymes D. beakbook

_____ 11.) How did most colonial children get to school?

A. the bus C. horseback

B. walking D. train

_____ 12.) In 1776, American colonists fought for their _____.

A. freedom C. taxes

B. tea D. money

Open Response: Answer the question on the lines below. Use complete sentences.

13.) Describe what life was like living in a colony. You must use the words *colony*, *colonial*, and *colonist* in your sentences.

_____

_____

_____

_____

_____

_____

_____

14.) Define the vocabulary word.

The New England Primer:

15.) Who was the schoolmaster? What did he do?

3rd Grade & 4th Grade – What Do You Know?

(Assessment questions taken from *A Beka Book*® curriculum.)

Name: _____ **Date:** _____

Multiple Choice: Write the letter of the correct answer in the blank.

_____ 1.) What power did each state give up with it signed the Constitution?

A. power to make laws
C. power to completely rule itself
B. power to vote
D. power to collect taxes

_____ 2.) What important power was withheld from the government under the Articles of Confederation?

A. the power to raise an army
C. the power to tax
B. the power to elect a President
D. the power to build roads

_____ 3.) Who has the power to make our country's most important laws?

A. the Supreme Court
C. Congress
B. the President
D. the Constitutional Convention

_____ 4.) The Louisiana Purchase occurred in what year?

A. 1803
C. 1783
B. 1776
D. 1793

_____ 5.) Whose job is it to judge whether or not the Constitution has been obeyed?

A. the Supreme Court
C. Congress
B. the President
D. the Constitutional Convention

_____ 6.) What is the highest court in the land?

A. Congressional Court
C. Federal Court
B. Supreme Court
D. Court of Appeals

_____ 7.) Who was elected President in 1809?

A. Thomas Jefferson
C. John Adams
B. James Monroe
D. James Madison

_____ 8.) In which part of Congress does every state, no matter what size, have equal power?

A. Senate
C. House of Representatives
B. Supreme Court
D. Fundamental Court

_____ 9.) In which part of Congress do the larger states have more power?

A. Senate
C. House of Representatives
B. Supreme Court
D. Fundamental Court

_____ 10.) Who is the heard of our government and sees to it that the laws are obeyed?

A. the President
C. the Chief Justice
B. the Vice President
D. the Secretary of State

_____ 11.) Where did George Washington live?

A. Washington, D.C.
C. Mount Vernon
B. Gettysburg
D. Mount Washington

_____ 12.) Where was the first capital of the United States located?

A. Philadelphia
C. Washington, D.C.
B. New York
D. Boston

Open Response: Answer the question on the lines below. Use complete sentences.

13.) What is Inauguration Day? What happens on this day?

_____

_____

_____

_____

_____

14.) What is a *republic*?

15.) What was added to the U.S. Constitution to ensure that certain rights and freedoms could never be taken away from the people? Choose and explain one of those rights?

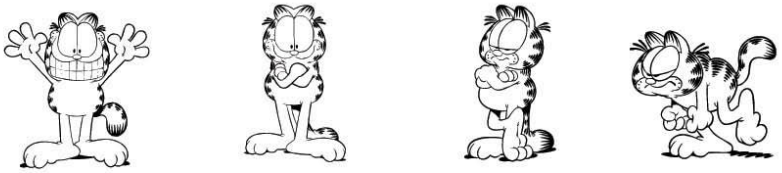
Appendix C & D (Student Reading Attitude Survey)

Elementary Reading Attitude Survey

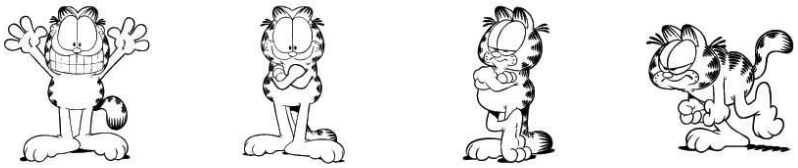
School_____ Grade_____ Name_____

Please circle the picture that describes how you feel when you read a book.

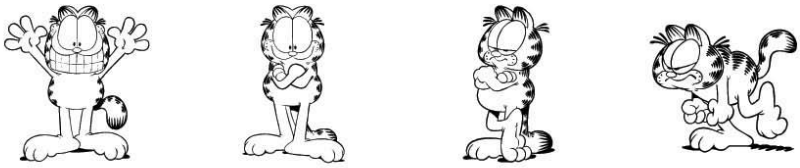
1. How do you feel when you read a book on a rainy Saturday?



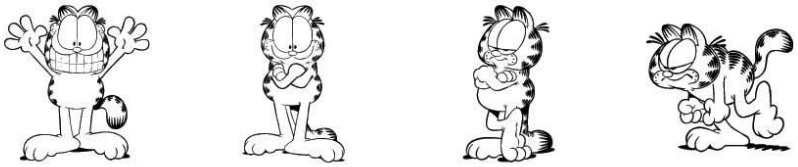
2. How do you feel when you read a book in school during free time?



3. How do you feel about reading for fun at home?



4. How do you feel about getting a book for a present?

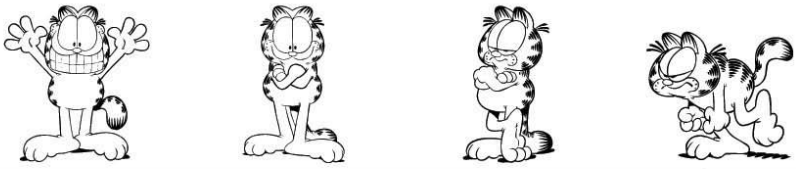


Page 1

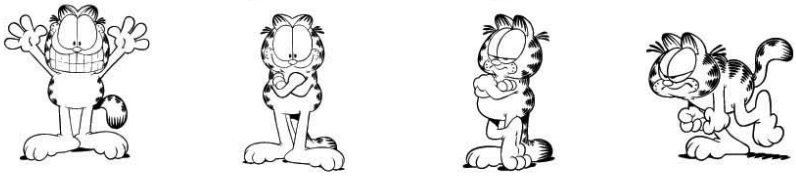
Appendix C & D continued

Please circle the picture that describes how you feel when you read a book.

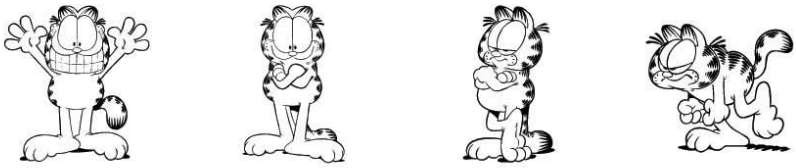
5. How do you feel about spendng free time reading a book?



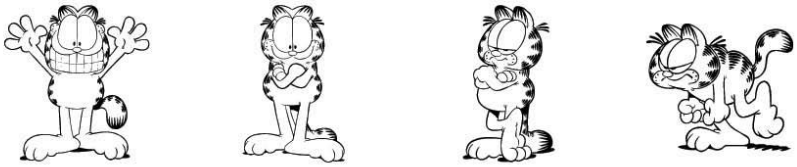
6. How do you feel about starting a new book?



7. How do you feel about reading during summer vacation?



8. How do you feel about reading instead of playing?

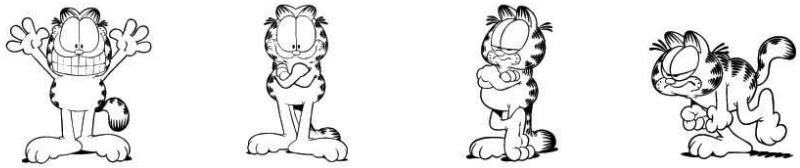


Page 2

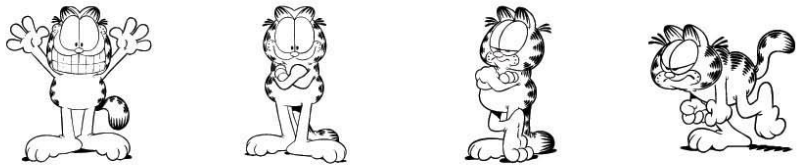
Appendix C & D continued

Please circle the picture that describes how you feel when you read a book.

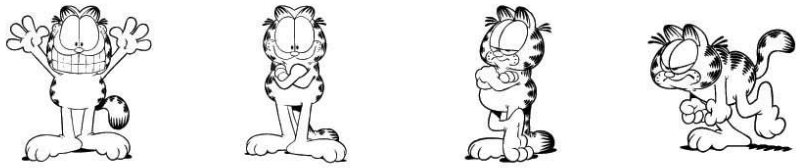
9. How do you feel about going to a bookstore?



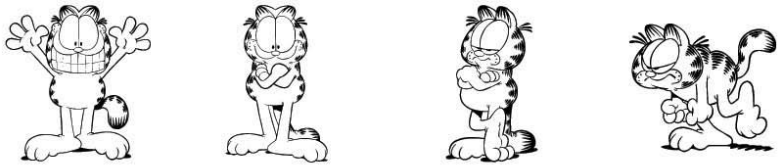
10. How do you feel about reading different kinds of books?



11. How do you feel when a teacher asks you questions about what you read?



12. How do you feel about reading workbook pages and worksheets?

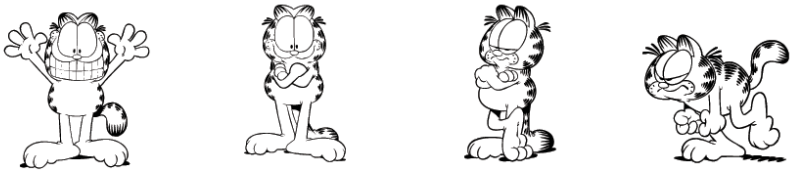


Page 3

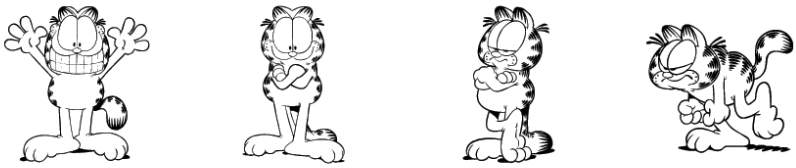
Appendix C & D continued

Please circle the picture that describes how you feel when you read a book.

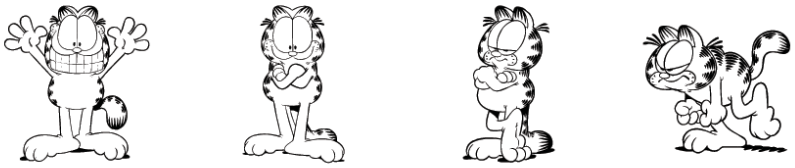
13. How do you feel about reading in school?



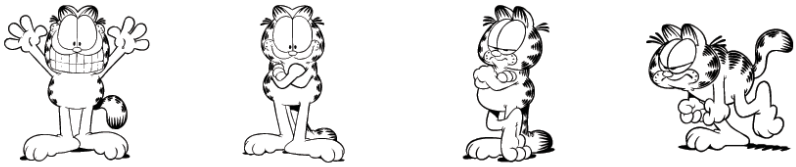
14. How do you feel about reading your school books?



15. How do you feel about learning from a book?



16. How do you feel when it's time for reading in class?



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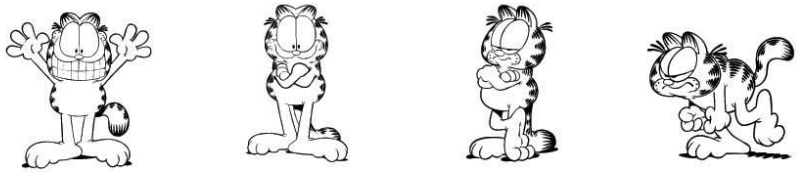
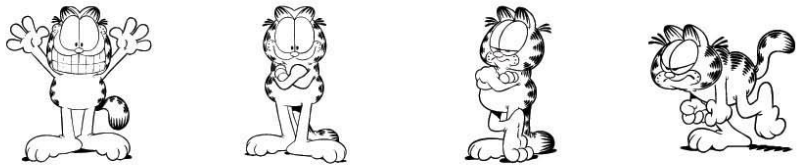
Appendix C & D continued

Please circle the picture that describes how you feel when you read a book.

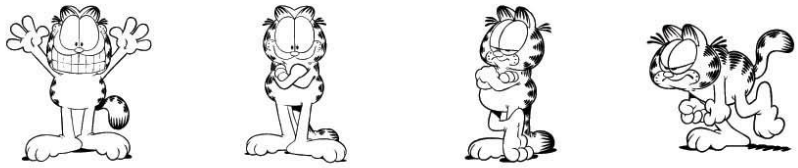
17. How do you feel about stories you read in reading class?



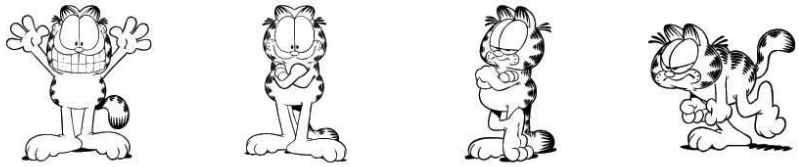
18. How do you feel when you read out loud in class?



19. How do you feel about using a dictionary?



20. How do you feel about taking a reading test?



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Appendix C & D continued

Elementary Reading Attitude Survey Scoring Sheet

Student Name_____

Teacher_____

Grade_____ Administration Date_____

Scoring Guide	
4 points	Happiest Garfield
3 points	Slightly smiling Garfield
2 points	Mildly upset Garfield
1 point	Very upset Garfield

Recreational reading	Academic reading
1. ____	1. ____
2. ____	2. ____
3. ____	3. ____
4. ____	4. ____
5. ____	5. ____
6. ____	6. ____
7. ____	7. ____
8. ____	8. ____
9. ____	9. ____
10. ____	10. ____
Raw Score: ____	Raw Score: ____

Full scale raw score . . . . . (Recreational + Academic): _____

Percentile ranks: . . . . . Recreational

. . . . . Academic

. . . . . Full scale

Survey designed by Dennis J. Kear, Wichita State University

Appendix E

Teacher Demographic Information

Content-Area Literacy Instruction

Note: Please complete the following demographic information form. This form will help the research to paint a better picture of the school environment and study population. Thank you!

Date: _____ Gender: Male / Female

Name: _____ Miss / Mrs. / Mr.

1.) What is the highest degree you've earned? Please check the appropriate box.

- ☐ High School diploma
- ☐ BA / BS
- ☐ MS / MA
- ☐ Specialist
- ☐ Doctorate

2.) Where did you obtain your degree? _____

3.) How many years of higher education have you completed? _____

4.) Do you hold a valid teaching license or certificate?

Teaching license? Yes / No

Teaching certificate? Yes / No

5.) How many years have you taught in a school setting? _____

6.) What grade level(s) are you currently teaching? _____

7.) What grade level(s) have you taught before your current position?

Grade level: _____ Grade level: _____

Grade level: _____ Grade level: _____

Grade level: _____ Grade level: _____

Grade level: _____ Grade level: _____

Appendix F

Teacher Survey

Content-Area Literacy Instruction

Teacher's Name: _____ Date: _____

Grade Level Taught: _____

Directions: Please answer the following questions. Questions #1-4 are open-ended questions and Questions #5-10 are rating scale questions pertaining to your personal opinions on content-area instruction and integrating literacy instruction into content-areas. All definitions of terms for this study are included in the *Key Terms & Definitions* or *Literacy Strategies Definitions* sections attached. If you have any questions at any time, please contact me. Thank you!

1.) On average per week, how much time do you spend teaching each of the following literacy strategies to students during social studies content-area instruction? Are you satisfied with that amount of time?

	Avg. Time/Week	Satisfied?
Print awareness		Yes / No
Phonological awareness		Yes / No
Phonics		Yes / No
Fluency		Yes / No
Vocabulary		Yes / No
Comprehension		Yes / No
Writing		Yes / No
Total Time		Yes / No

2.) Do you think that teaching literacy strategies to students during content-area of other subjects besides reading and writing (language arts) time is beneficial? Why or why not?

Appendix F continued

3.) In what ways do you incorporate literacy into other content-areas? If you are able, give an example.

4.) Give a brief description of your understanding on the role of teaching literacy skills during all content-area lessons, not just during reading and writing (language arts).

Questions	Always	Often	Sometimes	Rarely	Never
5.) I believe literacy should be incorporated into a part of every lesson, no matter the content-area.					
6.) I incorporate multiple types of literature and textual resources when teaching content-area instruction, i.e. fiction/non-fiction, narratives, persuasive texts, newspapers, journal articles, magazines, etc.					
7.) When teaching content-area lessons, I take the time to review the content of texts being used, i.e. having students go back and look at what was read the day before (formative assessment).					
8.) When teaching content-area lessons, I incorporate activities and exercises (both group and independent) that focus on academic language pertaining to the content-area in order to engage students' higher levels of thinking.					
9.) I find it helpful and beneficial to teach students literacy strategies during content-area lessons (as opposed to waiting until reading or language arts time to teach them literacy strategies).					
10.) If a student does not understand a section of a text, I will immediately take the time to review and instruct the student about literacy strategies they can use to help them better understand the content.					

Appendix G

Summative Group Discussion and Interview

Content-Area Literacy Instruction

Interviewer: _____ Date: _____

Teachers: _____

Note: The interviewer will ask all participating questions during a group discussion. One question will be asked at a time to ensure all teachers will be given the opportunity to answer the question to their satisfaction. There will be time for additional comments or questions at the end of the group interview session. All the terms are defined in the *Key Terms & Definitions* or *Literacy Strategies Definitions* sections attached. Thank you!

Group Questions:

1.) Do you think that there is value is teaching students literacy strategies and skills during content-area instruction?

2.) In general, how much time do you spend teaching literacy strategies to students during social studies content-area instruction? Are you satisfied with that amount of time? Do you think more or less time should be dedicated to content-area literacy instruction?

3.) In what ways do you incorporate literacy into other content-areas? If you are able, give an example.

4.) Give a brief description of your understanding on the role of teaching literacy skills during all content-area lessons, not just during reading and writing (language arts).

5.) Would you incorporate literacy into content-area instruction? Explain your reasoning.